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SOCIAL SERVICE IN THE STATE HOSPITAL.*

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In order to perform its work in the most efficient manner, a state hospital must, among other things, have the confidence of the community it serves. Especially is this so of the state hospitals that have to do with the care and treatment of the mentally sick. Any hospital that admits a patient really enters into a contract with that individual to give its assistance by doing everything possible to the end that the patient may be restored to health. It is, therefore, necessary that the hospital seek such information as will enable it to keep its contract.

The recognition of the fact that social conditions play a large part in the causation of disease holds the hospital responsible for the welfare of the patient after discharge from the hospital. Hospital problems are, therefore, social as well as medical, and accordingly there is need of trained Social Service Workers, as well as physicians. The two must recognize a common ground in their treatment of sickness and disease in the community.

If it be granted that the hospital exists for curative and reconstructive purposes, it then follows that the social aspects of disease and its treatment must be carefully considered. Close study of disease reveals the fact that the underlying causes of a great many diseases are poor social conditions, such as poverty, ignorance, vice, over-crowding, and serious industrial conditions. Social service is defined by Dr. Cabot as "the study of the character under adversity, and of the causes that mold it for

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good or ill." "History shows that medical work and social work are branches split off the same trunk—the care of people in trouble. The union of these two forces dealing with people in trouble results in the establishment of methods which aim to supply all essentials which would be otherwise lacking in a human life."

Before the establishment of social service in the hospital, it was practically impossible to extend hospital treatment into the community. Advice and treatment in reality began and ended inside the hospital. After-results were seldom learned by the hospital physicians. Many patients eventually returned for treatment, often suffering from the same trouble for which they first came for help. Directions and advice were constantly given and seldom fulfilled, for various reasons, good or otherwise. Such a method of treatment is not only expensive, but is in reality useless in some respects, if the underlying causes of sickness remain unknown, especially those relating to social conditions. With a social service established in the hospital, many of these needs are met satisfactorily.

Hospital social service was first started by the Society for the After-Care of the Insane in England. This service was augmented by the work of the Lady Almoners, in London, who visited hospital patients in their homes to learn of their needs, social or medical, and to refer them to the proper agencies. The visiting nurses' service was also valuable, in that the nurse cared for the people in their homes, and became familiar with their problems, which differed widely from the nursing service in the hospital. Still another form of hospital social service is to be noted in that of the social training given to the medical students of Johns Hopkins Hospital, in assigning them to work in the community, under the direction of the Associated Charities Organization.

The after-care work with the mentally sick in England dates back to about 1880, and consisted in looking after discharged patients in their own homes, and in giving them friendly supervision. It was the work of this society that first interested the state authorities of New York in connection with the care of the mentally sick. The first social service department established in connection with a hospital dates back to October 3, 1905, when

a nurse who had done some settlement work was installed in the Massachusetts General Hospital by Dr. Cabot, to investigate the home conditions of certain patients, and to see that the prescribed treatment was carried out. Dr. Richard C. Cabot is looked upon as the father of social service in this country. It was he who believed that the treatment of the patient should be more effective, and that a correct diagnosis should be made, if possible. It was he who was impressed by the futility of giving directions which were not fulfilled. He believed that hospital treatment should be made more effective, and studied a plan to make it become so.

In a little over a year from the time Dr. Cabot installed a nurse as a helper, a meeting was held by the officers of the out-patient department of the Massachusetts General Hospital, who recognized the work as a department. This was the first example of general, organized, hospital social service in the United States, as a separate department, and yet as an integral part of the hospital equipment. About a year later, in July, 1906, a similar department was started at the Bellevue Hospital, in New York. The number has grown rapidly, and at the present time there are over 100 social service departments connected with the general hospitals and dispensaries in this country.

Social service, as first applied to state hospitals for the mentally sick in this country, was established in New York. The Charities Aid Association employed an after-care agent to work among discharged hospital cases. This worker found in the homes of state hospital patients many persons who were on the verge of nervous or mental break-down, and believed that the need of preventive work was very obvious and pressing. As a result of this discovery, the Mental Hygiene Committee, under the State Charities Aid Association, came into existence. For about two years they distributed literature on nervous and mental diseases, these publications being sent to all parts of the state. Public meetings were held to instruct the people regarding mental diseases. As a result of this movement, many inquiries were received from sufferers, and the problem thus presented revealed the need of a social worker who would attend primarily to preventive work. In August, 1912, a social worker was appointed for this work—namely, to attend to inquiries received, and to

gather material as to the value and effect of preventive work through social service in mental diseases. The work has since extended to other state hospitals in New York.

Massachusetts was next to install social service in state hospitals, though in a somewhat different manner from that of New York. With the opening of the psychopathic hospital in Boston, a social service worker was employed to attend to the social needs of all patients admitted to the hospital. This took place during the latter part of 1912. A few months later, May 28, 1913, the Danvers State Hospital engaged the services of a social worker who should live in the hospital. This work was established for purely social reasons. The worker was to gather social data concerning patients in the hospital, with a view to replacing a larger number of patients in the community. The study of social causes, or contributing factors, to mental disease, and the contribution of such knowledge to the hospital, was to be used as supplementary material to the medical knowledge. In addition to these reasons for establishing social service, was that of securing the co-operation of the community in the care and treatment of the mentally sick. After-care work of discharged patients is considered a vitally important part of this department.

In July of the same year, the Boston State Hospital installed a social service worker. Within a very short length of time, the number spread in Massachusetts, so that practically every state hospital for the mentally diseased has at least one social worker. Although New York was the first state to introduce this work in this country, Massachusetts is quoted as being the only state where the work is fully developed and organized under state management. A movement is now on foot to standardize the work of social workers in the state hospitals of Massachusetts, and for studying measures which will lead to better and more extensive preventive work.

When the social service department was established at the Danvers State Hospital it was necessary to organize the work to fit the needs of the institution which were recognized as threefold.

First: The Needs of the Patient (both medical and social).—Inasmuch as a diseased mind or body cannot be adequately con-

sidered apart from the contributing social factors, treatment cannot become efficient until a social knowledge of the patient is obtained.

Second: The Needs of the Institution.—These are obviously many and varied. In order that the hospital may best serve the purpose for which it is intended, it is quite essential that full and reliable information relative to patients be obtained. Social data thus acquired make it possible for hospital statistics to lead toward definite action as regards legislation relative to the treatment and prevention of mental disease. Another distinct need of the hospital is that of cooperation on the part of the community. In no other way can the forces be joined which should work toward preventive measures, and toward the establishment of practical methods of after-care of patients in the community.

Third: The Needs of the Community.—These are essentially three in number; (a) Education as to the causes, treatment, and prevention of mental disease. (b) Instruction as to the after-care of patients who return to community life. (c) An awakened sense of responsibility toward dependent or partially dependent persons who are mentally handicapped.

The work has been developed until at the present time it includes the following divisions:

I. Investigation of special cases for specified purposes, usually relative to after-care of patients who are under consideration for discharge or trial visit at home.

II. The securing of histories, medical and social, outside the hospital.

III. Home visitation or after-care of out-patients.

IV. Systematic boarding out of patients in private families.

V. Connecting needy persons with the proper agencies.

VI. The weekly attendance upon the out-patient clinics.

1. Investigations of Special Cases for Special Purposes.

The number of such cases is constantly growing as we endeavor to really do something more than care for the patient. Where special investigations are made we are not so free as formerly to believe that many statements of patients are delusions. Where consideration of condition of patient alone would lead to advising against home visits, we are now enabled to determine whether

home conditions are satisfactory. It is, and should be, our desire to return to the community every one where there is a possible chance of the patient being able to get along outside of the hospital. It may be desirable to have investigations made through the social service department in special diseases, such as pellagra. Complaints to the State Board of Insanity, where exception is made to the opinion of the hospital staff regarding the release of patients, are made the object of investigation on the part of the social service workers. The following report of the social service worker's investigation of a special case illustrates the value of the work:

Mary B—, 24 years of age, of good family, American, fair education, single, became pregnant. Worry, anxiety, remorse and the unsympathetic attitude of her family contributed to a mental breakdown. Marriage was impossible as the father of the child was a married man with a family; a business man with some social standing. Because of his business and social standing, and likewise because of a doubtful moral standing, he attempted to free himself from all obligation and notoriety by the payment of a few hundred dollars which was to release him from all future obligations. Mary was never able to earn over $5 or $6 a week; her family was in poor financial condition and bitter over the occurrence. This unmarried mother was practically left alone to face her problem and to carry her burden. She was never strong mentally and following the birth of her child became mentally deranged. The child was placed with a Children's Agency and boarded in a private family. Mary improved and returned to her home in the course of time. Her family, who keenly felt the disgrace of the whole affair, was not entirely cooperative in helping to keep Mary in a good mental and physical condition; the possibility of a recurrence of the trouble had not occurred to them. It became obvious that some definite plan must be made as to the permanent care of her child. Here was an illegitimate male child of a defective mother who had been insane; no permanent means of support; nearest relatives antagonistic. Four different agencies were in touch with the case and not one had given due consideration to the fact of the mother's mental condition or prognosis. Each society had specified rules for the care of dependent children and religiously adhered to them. It was a new departure for them to take the mental feature of the case into consideration, especially as the mother of the child was able to live under supervision in the community. With the cooperation of the hospital worker, plans were gradually changed; the case is now in the hands of a Legal Society which will compel the father of the child to contribute indefinitely toward his support according to the laws of the state. The child is placed in a permanent home with people who will place him on a good physical and economic basis. Possibly the best phase of the solution of this case was the educational aspect which these various agencies received in considering a case connected with a State Hospital.

2. The Securing of Histories, Medical and Social.

Not infrequently patients are admitted where it would be impossible to secure a history were it not for the services of the social worker. Such histories are exceedingly valuable because in addition to the facts of primary interest to the physician, a social history is also obtained affording an insight into the needs of the patient that could not be had before the advent of a social worker. It is believed that a trained social worker can secure equally as good medical histories as physicians, thus allowing the latter more time for purely medical work and individual attention to the patient. Such histories have the added value of containing information regarding social factors which may have a bearing on the case, resulting in the physicians and social service workers cooperating in their efforts for the welfare of the patient.

Accordingly, it is desirable to have at the institution one member of the social service organization to meet relatives and friends of patients who come to the institution to give information regarding the patient's mental sickness. An opportunity is also provided to secure a social history.

3. Home Visitation or After-Care of Patients.

This work is both preventive and reconstructive and permits many more patients to live outside the hospital than would otherwise be possible without such supervision. The hospital keeps in close touch with its patients and their return can be advised promptly if thought necessary. This work seemingly met with some opposition at first. Our social worker would relate that many thought our patients a type of criminal and that they were treated accordingly; that it was considered a disgrace to have a relative in the hospital. At first, in visiting discharged patients, she was looked upon as a hospital spy with some ulterior motives. It is interesting and gratifying to note how quickly public opinion changed, once the hospital's work was understood. The following case illustrates what was accomplished by after-care work:

Mr. G—, about 33 years of age; Swedish birth; American citizen; meager education; a machinist by occupation. He developed the alcoholic habit which, in addition to some organic mental disease, resulted in his commitment to the hospital where he remained for several months. He

had a wife and child three years of age; wife was thrifty, industrious, of excellent character. She had endeavored to care for patient in his home although she was several months pregnant and had no knowledge of mental sickness. She became nervously and physically "run down," and upon her husband's commitment to the hospital was left without income which added to her cares and burdened the patient as he constantly talked of home affairs and believed he could never recover with this state of affairs present in his home. Arrangements were made for continuous material relief, that is, financial aid was secured from relatives and private societies; medical care was provided for the wife through and after her confinement. Frequent home visits, which, by the way, were requested, helped to pave the way for patient's return to his home when he should become able to leave the hospital. He also was prepared for home life through frequent ward visits. At the time of leaving the hospital he entertained some ideas against his wife; difficulty in securing steady employment was experienced, but these obstacles were gradually overcome; repeated explanations regarding the use of alcohol were made to patient and his relatives, all of whom cooperated in aiding patient to adjust himself to community life. Steady work, at a good wage, was secured. Patient is using no alcohol; family life is happy; physical health of family is excellent; Mr. G— has been out of the hospital two years and is steadily showing improvement.

Educational and preventive work is made possible by after-care work, and the general attitude of the community toward the hospital is rapidly changing from that of suspicion to one of confidence.

4. Boarding-Out of Patients.

Since January 1, 1915, the work of boarding-out of patients formerly cared for by the State Board of Insanity, has been turned over to the various institutions. This has resulted in much more work for the social service department, both in making visits to the private homes where patients are boarded and also investigating the homes of those requesting patients to board. The work of this branch of social service in an institution should permit of returning to the community many patients requiring a certain amount of supervision who, without this, would have to remain under institutional care.

5. Connecting Needy Persons With the Proper Agencies.

Frequently breadwinners and mothers of families become patients and leave dependent persons without means of support, illustrating the seriousness of ignoring the social factors in the

cases admitted and considering the patient as an individual instead of a member of a family.

Case of R— K—, male. The family history as obtained by the field worker shows that the patient's father was born in Hartford, Conn., and is supposed to be still living. He deserted his children following the death of his wife, after placing them in a Catholic home in Hartford. He has not been seen since that time. Mother, K— B—, was born in Ireland. Died when the patient was an infant, cause unknown. There were four children, three girls and one boy, all of whom were placed in an orphanage in early life. The children were later placed in private homes, but present location is not known. Personal history shows that the patient was born in Hartford, Conn., November 15, 1875, a Roman Catholic. He received a grammar school education on leaving the orphanage. At about 16 years of age he went to work in Hartford, Conn., where he was employed in a wood shop, working until about 23 years of age. He then moved to Beverly where he worked in a box factory. He later moved to Lynn and worked there as a carpenter. He has lived in Lynn for the past six years. He was married February 22, 1889. Patient was 24 years of age when married, his wife was about 22 years of age. Three children, all living. One daughter is somewhat nervous, and is rather backward in her school work. The patient's married life has been fairly happy until about two years ago, when he became very difficult to live with. The members of the family have been living in almost constant fear of him since the year 1913. He has had periodical nervous spells, occurring during the past six years, and at intervals of about one month. At these times the patient would become very irritable, restless and excited. In the winter of 1914 he fell from a team, striking the back of his head, injuring himself quite severely. Since that time he has been mentally upset. He has taken quantities of some patent medicine in the past five years for nervousness, but discontinued the use of this medicine about one year ago, losing faith in it. He has always been of a nervous, quick-tempered disposition, somewhat seclusive of late. Formerly he was quite social. He has been rather sensitive and easily irritated if watched while at work. He would become extremely nervous if orders were given him concerning his work. He could not hold a position longer than six or eight months during the past five years. During his early married life he used alcohol moderately, drinking only Saturday nights and Sundays. He is said never to have been intoxicated. He has been an excessive user of tobacco for several years. Onset of present psychosis is said to have occurred about the winter of 1914, following the injury to his head. Since that time he has developed delusions of persecution, thought his fellow workmen were plotting against him and that his persecutors followed him on the street. Has not been able to hold a position more than three months at a time. He feared to return from work alone, his wife being obliged to meet him and accompany him home every night for several weeks. He gradually developed ideas of infidelity against her; watched her constantly, and declared that unseen voices in-

formed him of her immoral life. On several occasions he has attacked and struck his wife. He gave up work six months prior to commitment, because of the delusions of persecution and inability to concentrate his mind upon his work. He has remained much in the house fearing to go outside. He declared that people followed him, plotting against him to kill him. He would sit at home, staring out of the window for hours at a time, then suddenly fly into a rage. Three months ago he attacked his wife and struck her, declaring his intention to kill her, after which proposing to kill himself. The patient became quite angry because his wife hid his razor, thereupon he stole her watch and refused to return it. He frequently attempted to obtain money to purchase a revolver. Talked of injuring the children but never attacked them. A few weeks prior to commitment he attacked his wife, grabbing her by the throat, struck her in the face, breaking two of her teeth. He became very restless, refused to go to bed, would lie down with his clothing on. He refused food, declaring that his wife was trying to poison him. Two days prior to commitment he went to the police station and requested his wife's arrest on the charge of insanity and immorality.

Investigation of Home Conditions—Present Situation.—Family is at present without means of support. Situation appeared to demand attention, so investigation was made in addition to above history. Patient has a wife and three dependent children without visible means of support. Wife is nervously broken down and unable to work; she is about 36 years of age, rather stout and apparently good character. Seems to be of low order of intelligence, somewhat suspicious, but an excellent mother. She is very emotional, being unable to converse without weeping. States that on account of the anxiety of the last six months she is completely unbalanced, and physician has commanded her to discontinue work for several weeks. She is the main support of her family and is much worried over present situation of the family. Is willing to work and support children, but at present is physically unable to do so. Children: Mary, 14, in delicate health. Mother fears she is developing tuberculosis. Is under-nourished, rather anemic in appearance. Complains of general weakness and pain on the right side. Also complains of pain in the region of the heart. She finds it very difficult to learn in school. At present she wishes to leave school and assist with family support. Is under-sized, wears eye glasses, eyes are slightly turned. Inclined to be hysterical and very nervous. Helen, 12 years of age, average size, general appearance of good health. Apparently normal; is said to be an average scholar. John, 8 years of age, attends school. Appears bright, is quite active, markedly interested in school. All children appear rather anemic, assigned reason being that of lack of proper nourishment.

Resources.—Patient formerly earned between $8 to $12 a week, while he was employed. Wife earned $7 a week at a shoe factory. At present the only income is $3 received from the Overseers of the Poor of Lynn, this money to be used for food only. Relatives are poor and unable to assist family. Rent $3.50 a week.

Home and Neighborhood.—Family live in the vicinity of East Lynn. Neighbors are largely American people of the middle class. A few Italian families are in the neighborhood. Houses are largely of the two-family tenement type. Sanitary conditions are fairly good.

Employment.—Patient was an unskilled workman, usually worked in the wood shop or as teamster. Nature of work required physical strength rather than intelligence. He frequently worked from 8 to 11 hours a day. Wife has worked in a shoe factory for about five or six years. The husband's wages were insufficient to meet family needs.

Religion.—Patient is a Roman Catholic, not actively interested in religion. Has not attended church for several years. Wife is a Protestant. As husband manifested no interest in religion and expressed none in his children, family have attended the Friends Church.

General Statement.—Dr. M—, family physician, also city physician, was consulted as to the physical condition of patient's wife and family. He stated that she was suffering the reaction of long mental illness of patient, and that the fear and anxiety of living with him caused her to be in an extremely nervous and exhausted condition. He states that she is unable to work and should rest for at least two months. Believes the family income is inadequate. Mrs. K— is greatly worried over the present situation of the family, fears that they will be evicted from the house on account of the non-payment of rent. She is also worried over the physical condition of Mary, eldest daughter.

Action Taken.—Miss O—, Secretary of the Associated Charities of L—, was interviewed and a plan was arranged for patient's wife to have a few weeks' rest at the St. Luke's Convalescent Home, the children to be temporarily boarded. Providing Mrs. K— would worry more over the separation from her children, temporary aid will be given the family until such time as she is able to return to work. This will enable her to remain quietly at home with the children. Mary is to be examined at the tuberculosis clinic and treated accordingly. Relief will be administered until a permanent plan can be formed for the family. Visitor will keep in touch with the situation.

It occasionally becomes necessary to change a previous environment, especially where it has been considered a contributing factor in the causation of mental disease. The following illustrates the handling of such a case:

Mrs. S—, about 45 years of age, had married a man of low intelligence and of low standards of living and thought. She came of good family, possessed some natural traits of refinement and showed evidences of good breeding. The husband was not over-ambitious and did not adequately provide for his family of six children, necessitating the help of the wife who worked as waitress in a hotel. Mrs. S— contracted the drink habit, partly through the generosity of her husband who frequently treated her; was often intoxicated. Two elder girls were at work, a boy of 17 had but

recently returned from a correctional institution; younger children were under no restraint; received no home or moral training and were showing evidences of waywardness. The home life was freely punctuated by quarrels; all were at odds with each other. Finally Mrs. S— became mentally deranged through alcoholic indulgence and domestic friction; the family was divided against itself. There seemed no solution to the problem of proper home care; patient was determined in her decision not to return to her home because she believed that her home life was the cause of her breakdown. There seemed to be no common ground, and but poor material with which to reconstruct the family life. Three children under 17 years of age were greatly in need of care and training. Efforts were made to interest patient in her home because of these children and for this reason alone would she consent to returning home. The members of the family were interviewed separately and jointly and family affairs were freely discussed from every point of view. A plan was formed and agreed upon that the husband and father should fulfill his duty as became a man in that position; he and his adult children were to contribute to the family budget; the wife was to remain at home; quarrels were to be discontinued and harmony was to be restored. As the family lived in a most undesirable neighborhood, over a saloon of notorious reputation, in a locality of like reputation, they were advised or compelled to move into better quarters. Patient eventually returned to her new home; after a few days the social worker was notified that fresh mutiny had broken out and was requested to call. A visit resulted in a long friendly chat with patient who acknowledged her weakness, for she had again indulged in alcohol which alarmed the family. She was too weak morally to resist this temptation, and her priest was requested to aid in her restoration. At last accounts the home life was comparatively smooth. Patient is improving mentally and physically. This case will be noted as a purely social one; inadequate income, alcoholism, ignorance and bad housing were the social symptoms which required purely social readjustment.

6. The Weekly Attendance Upon Out-Patient Clinics.

Out-patient clinics were established in September, 1914, at the direction of the State Board of Insanity, in the large cities of the hospital district. The clinics are held in the evening in order that patients who are out on trial visit and who are at work need not lose any time in attendance. Notices are sent to all patients away from the hospital on trial visits who can easily report at the clinic in the city nearest their home. Notices are inserted in the newspapers calling attention to the clinics. The various charitable organizations and the physicians in the district are also notified in order that persons may be referred for examination and advice.

These out-patient clinics serve as a distinct aid to the after-care work of the social service department. If, for any reason, former patients do not report, the social service department investigates the reason immediately after the clinic. An opportunity is given relatives of patients in the hospitals to consult physicians. Quite a large number of persons visit the clinics voluntarily to consult regarding their own condition. The work of the out-patient clinics has been very satisfactory.

The work of the social service department during the last two and one-half years has demonstrated its value to both the hospital and community. As yet its value cannot be estimated financially in dollars and cents. As the work is now organized it is believed that the department should be expanded and that we should have a head social service worker to direct the work, and that there should be four assistants, one to care for the boarding out of patients and their supervision; one to give her time to the employment question assisting patients in finding work, etc.; one assistant to do after-care work and systematic home visiting; and one worker to secure histories both medical and social of all patients admitted. A department so constituted would furnish the hospital with information both medical and social, having to do with the sickness of our patients; it would undoubtedly permit of the return to the community of more patients, and would make the hospital the educational center for the community, inspiring such confidence that both the hospital and community could be of assistance to each other in working efficiently toward the abolition of the causes of distress.

It is believed that such a program offers much toward the solution of a problem that is increasingly making greater demands on the state for the care and treatment of the mentally sick.

The writer is indebted to Miss Hannah Curtis, in charge of the Social Service Department, Danvers State Hospital, for the social service case reports.

DISCUSSION.

DR. RUSSELL.—I am naturally interested in this paper because Dr. Kline has elaborated from a large experience some of the points that I tried to present on Tuesday evening. What occurred to me when he was reading it was, that perhaps it would be well to draw attention to the plan followed

in New York State. This plan may be followed out in other states, but I do not know that it is. It is the plan of sending trained nurses from the hospital to escort patients from their homes to the institution. I know that where this plan is not followed, the methods employed are often very objectionable. In New York it has been a great success. These nurses sent for patients can get histories and nurses who are trained in the work do really get remarkably good histories. I wouldn't like to say that they can get as good histories as physicians, but the experienced nurses are able to get better histories than the inexperienced physicians on the staff can get. Their influence on the community is also very good.

Dr. Kline's paper rounds out some of the other things that have been said about the social aspects of the hospital work, and it seems to me that certain principles should be laid down for developing plans for that kind of work. I don't know of any body by which such principles can be formulated so well as by this.

Dr. Southard.—I ought not to speak all the time, but Dr. Kline's paper brings up a very interesting topic in its reference to the social service movement, and I want to say one word to define the medical point of view thereto.

In Massachusetts the relation of the social workers to medical workers is being rapidly adjusted. Lay clinical assistants often very adequately get the relationships of the individual to his social environment; his relationships to the friends, to the public agencies or services. But the *relationship of the patient to himself* is to be considered and should be given up to preliminary investigation by the physician himself. The points of view of the father, the mother, relatives, and, the rest are very important; but their points of view must not be confounded with that of the patient's very own, *the history from the patient's point of view.* We calculate that we come into contact with 10,000 different personalities in the course of a year at the Psychopathic Hospital in Boston. The lay assistants are very good in almost every problem except that of getting the relationship of the patient to himself. The modern development of psychoanalysis and of other advanced methods emphasizes the necessity of this. That is frequently where we can save our patients from any damage by the non-medical point of view of the social worker. One more point. In listening to Dr. Copp's paper and also to Dr. Kline's, we see clearly that the word "insanity" is a lost one; and I am reminded what Dr. Kline said to me informally since coming to New Orleans; that is, that this word should not be continued even in the title of our Journal; that it ought not to remain, The Journal of Insanity, but rather *The Journal of Mental Diseases,* or psychiatry or something else still more appropriate to this point of view. I hope Dr. Kline's suggestion may be listened to at the earliest possible moment. I am sure that even Dr. White, with whom I disagree on some points, although I agree with him on most topics, would certainly most earnestly agree with a motion to that effect.

DR. SALMON.—I would like to say a word about the sex of the social workers. It is true that in nearly every case workers assigned to these duties are women and it is assumed that they alone should do this work. That assumption is not necessary. I know of one instance where it is in charge of men who were former supervisors in a hospital in that state and, in my opinion, they do very efficient work indeed, particularly in finding employment for the patient who is about to be discharged. They travel around in the smoking cars, they mix with all kinds of people in the country hotels, barber shops, etc., and they get into touch with people who have employment to offer. In my opinion the work sometimes suffers by having it done exclusively by women.

THE PRESIDENT.—I observe one or two lady members of the Association present. Perhaps one of them will defend their sex as social workers.

DR. MARIAN O'HARROW.—I should think that men could often do much better work in this field, from their training than women could.

A PSYCHOSIS PRESENTING SCHIZOPHRENIC AND FREUDIAN MECHANISMS WITH SCHEMATIC CLEARNESS.*

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The psychosis with which this paper deals occurred in a fairly healthy looking woman, 32 years old, who for 13 years had been holding a responsible position in a large business office. My purpose is to present the case as revealing itself in those manifestations commonly recognized in the field of the general psychiatrist. I shall not at this time go into the latent or more cryptic mechanisms falling particularly within the more special field of psychoanalysis.

My introduction to the case was through a series of letters written by the patient, Miss Z, immediately before she had to give up her office work. The family physician, who gave me the letters, said the girl had been "laid off" three times during the year because of her nervous condition. Previous to this, during a dozen years, she had lost but little time and had been advanced to a position requiring a high degree of efficiency. On account of certain serious accusations made in these letters, they had been put into the hands of the management. These accusations, together with some other deviations from usual conduct, brought about apprehension as to the patient's mental condition. The letters center about a young man employed for a number of years in the office.

The first letter was addressed to the mother of a young woman who, Miss Z, the patient, supposes is receiving attention from Mr. X, the young man in question. She advises the mother that Mr. X writes to the daughter daily, and is not "justified" in doing

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so; that he has been "torturing" a young girl in the office for the past year and is still doing it; that this "torture" caused the girl to have a long illness, and that Mr. X ought to pay the doctor's bills because it was his fault, and he refuses to do so. She will not give all the "particulars" now, but will go to "your city" on a certain day and will meet the mother and daughter "in the station" and will then give them "all particulars." She "cannot explain the nature of the torture now." Mr. X will deny it all, but the mother must stop the correspondence if she has any "womanhood." Only the girl's initials are signed to this letter, but she gives her office address. Ten days later another letter was sent to the same woman in which the accusations are reiterated in almost the same words. The patient speaks of the "torture" it is to her to see Mr. X writing to the lady's beautiful daughter, and of the chances she (the writer) is taking in trying thus to save the girl from this man. "He will lie out of it all" and he would be "kicked out of the office" if she should tell, but that she will never do. She has already, the letter declares, informed the mother of still another young lady with whom "he goes," of Mr. X's "torture." In this letter Miss Z again appeals to "womanhood," and this time signs her full name.

Some days later the patient wrote to the father of the young man in question, asking for an appointment. "The story" she had to tell him was "something awful," she wrote. "Mr. X has been carrying it on for the past year," and she cannot stand it any longer; he "denies it with his big black lies"; he "knows the nature of the 'torture' but he will not stop it." Before taking the matter up with the manager, she says, she feels that she ought to tell him (the father). She appoints a definite hour and place for a meeting and depends upon the father's "manhood" to keep it. She "has reached the end of her string" and "will get Mr. X behind the bars" and will keep him there "until he acknowledges it." There were other letters, and many telephone messages of the same general purport during this manic period.

The manner in which the letters were written and their contents plainly indicated a state of manic excitement with paranoid development. The letters, were, of course, a plain revelation of the girl's own interest in the man, and were motivated by her unconscious desire to keep him for herself.

A few weeks after the letter episode the young woman was placed under my care in the hospital. The patient was pleasing in manner, though somewhat shy and nervous. She was rather faded and emaciated in appearance, being at the time 20 pounds under weight. She related her story apologetically, as if herself realizing its foolishness. She would hesitate, turning to those about her as if for encouragement to go on. She kept laughing awkwardly, and saying "wasn't that awful of me?" "Don't you think I was terrible to do that?" The patient's tendency to ramble into details made it difficult to keep her to the point under discussion. The story, as she herself told it, is briefly as follows: She had been nervous and discontented in the office for three years. A certain man in the office force had been giving her a lot of trouble; she thought he "hypnotized" her. "I was all in, when he came near me!" She had been working in the office with this man for a number of years. She had regarded Mr. X merely in a friendly way; felt that they were "congenial." "We responded well to each other." "I respected him."

About a year and a half previous to the writing of the letters an incident occurred which seems to have brought about a fixing, as it were, of her interest or libido upon Mr. X. On coming into the office one morning after the marriage of one of the force, Mr. X said: "Miss Z and I will be stepping off next!" From that time on Mr. X "bothered" her, she said; whenever he came near her, what she called her "animal nature would predominate"; she felt that he "cared" for her; they "talked about marriage, and things that some people might have thought not nice." The psychic splitting which culminated in the schizophrenic psychosis seems to have begun what we might term its incubation period, with this occurrence. For about six months after this Miss Z went along, doing her work with her customary efficiency, yet simultaneously dwelling in a fanciful, autistically created world with Mr. X. There seemed to be no real basis upon which to build her fancies; but she regarded him as a suitor. This romancing regarding Mr. X was fast becoming a dominating influence.

Another incident, which accentuated the development of the psychosis, was again a casual remark coming from Mr. X. One morning about six months after the other episode (Mr. X speaking of their "stepping off together") when the patient, who had

had a headache the night before, came into the office Mr. X. said: "Miss Z looks as if she'd had a hard night of it." The young woman in relating this said "the boys around snickered." "I knew what he meant before they laughed." Definite loss of self-restraint seems to date from this incident. She reported it to the manager, and in her own words "made a great stir about it." There now comes definitely into the foreground the paranoid trend, defensive in its mechanism (a barrier being erected against conscious acceptance of her own overwhelming sexual desire), which culminated finally in the paranoid outbreak expressed in the letters. The girl stopped speaking to Mr. X. She was more and more harassed by the fact that he "stirred up the animal" in her. She thought he intentionally brought "this feeling" upon her.

The patient, as was brought out by the analysis, had been conscious of this "animal feeling" from her sixteenth year in the presence of men or boys. In her own words "It came now with terrible force when with Mr. X, though I tried," she said, "by working very hard to keep it down." This state of tension continued for some months when the progress of the psychosis was marked by a very significant development indicating a transformation to a different mode of adaptation to an overpainful reality. Relief came through the hallucinatory intervention of Mr. X's voice. She now began to believe herself to be carrying on conversations with him, thus re-establishing, satisfactorily to her own mind, relations which had been broken off through her not speaking to him. She now felt that all her actions were guided by Mr. X. She reached her decisions, though often at first after much contention, through obedience to the commands of his voice. At times the voice would "rail" at her; it would "dictate" as to everything she should do. (Command automatism.) She came to be entirely dominated by the voice; and finally began going to Mr. X at times begging him to let her alone. She felt that Mr. X could "do anything" with her "that he liked." She complained to the manager that "someone had her will." It now became evident to her employers that she was greatly wrought up and in no condition to continue work. She was given a leave of absence.

The appearance of this new element, Mr. X's voice, designates a change from a mere *feeling* that this man exerted a dominating influence over her emotions, to a *certainty* that she was entirely

under his control. (Did she not now actually hear the issuance of his commands?) She was now convinced that he knew all her thoughts, and knew also that he held her absolutely in his grip. Further she began to think that he had the power to be where she was. The dynamic situation, in other words, the driving need for the completion of her romance made it necessary that she believe in his actual presence, as becomes clear in the light of early subsequent developments at her home. The course of events seems to designate an unconscious preparation for the fulfilment of the patient's overwhelming amorous desires; she is now able to have the man with her. The voice continued the railing during her first days at home, laying bare every indiscretion of her past life. (The same motives existed in this romancing as lead lovers in actual life to reveal their shortcomings to each other.) Her own thoughts of unworthiness were coming back to her in his voice; she was soon dominated by this audible thinking. After two weeks the voice changed from railing and double-meaning remarks to gentleness and lovemaking, bringing her still nearer to the consummation of her fanciful wish. Finally the voice said Mr. X was coming for her; it seemed that they were to be married. Suddenly one day she put her things in order, threw away her old clothes, packed her trunk, destroyed the cards engraved with her maiden name, and consigned her eye-glasses to the waste basket as the voice informed her that they would no longer be needed. The patient in relating her story said that while she was making these wedding preparations, the voice began to talk to her like another part of herself; and it is an interesting fact that later when she returned to normality, she realized that the voice represented her own desires, her thoughts made audible. (This element of the psychosis seems to signify the Freudian mechanism of identification of the partially dissociated, or schizophrenically developed, side of her personality with the object loved. Psychoanalysis also brought her to understand that the disposal of her eye-glasses, etc., was a response to her own wish to appear attractive to the man she believed she was to marry.)

During these preparation for marriage the voice kept saying, "I am coming! I am coming!" The girl was in a state of high exaltation and expectancy. That night after retiring, Miss Z said, her "mind broke"; she "began to think in two ways." She

seems at this point in her psychotic flight to have reached the culmination of her desires. It was as if it were her wedding night. She was convinced that Mr. X was there with her. She told him that she "loved him"; and "the animal" in her "nature" gave her a "feeling of great pleasure." Immediately, in the "midst of the pleasure the image of Christ came"; she felt that she was "committing sin"; she was "terribly frightened" for she "didn't know how the spirit would enter her body." The direct sex significance of this expression is evident. (Here we have clearly spread before us the symbolization of a long struggle which had been going on in the patient's mind. Frequently during the recital of her story the girl declared that she had "many a fight" with her "animal nature." It was brought out that from her girlhood she had gone through periods of religious fervor; and a few months previous to the focussing of her interest upon Mr. X she had hit the Billy Sunday trail, though with constant misgivings as to the step. In her own words: "One side of me wanted to be converted; the other part of me didn't, because I was afraid that then I couldn't have a good time.")

Three days after the marriage episode the psychosis reached a point when for an entire night the patient's memory was wholly obliterated. This seems to have been the only time when the dissociation process reached the stage of complete amnesia. During the analysis one got the impression that except for this time—and possibly during the manic period of preparation for marriage—the patient must have been struggling hard against the unreality of the situation. Misgivings as to the reality of her fancies seem constantly to have injected themselves. Her autistic thinking could not quite reach its goal. She seems to have been unable to lose the feeling that somehow it was all a fiction in the manufacture of which she herself was having a hand. (This fact that complete dissociation was unable to maintain itself, but for such brief periods, is of favorable prognostic significance.)

The feeling that the marriage had not been actually consummated forced itself upon her and during this period—her three months absence from the office—we find her building up a counter, compensating delusional fabric by which she might effect a compromise between her incomplete wish fantasy, and reality which kept insisting upon recognition. The marriage had not in reality

taken place; therefore, she and her lover were being kept apart; she felt that the bond of love as yet existed between them. Through the medium of his voice, she was still in constant communication with him; and she believed that he was faithful. She believed that he too was suffering; that he was passing through the same "ordeal," through their being kept apart, as she herself. Sensorially, through the auditory hallucination, she knew that he was with her; but her intelligence could not harmonize this fantastic situation with the cold facts of her every-day life among the family at home. "Why doesn't he come to see you?" they would ask. "He's a funny suitor!" This constant bombardment of her fabrication by the hard facts of reality began to undermine the structure, for we find creeping into her compensatory belief that they were being kept apart, etc., a suspicion as to her lover's sincerity.

When the patient returned to the office after her absence, instead of finding Mr. X pale and haggard from the "ordeal" she supposed he had been going through along with herself, she found him robust and happy. This came as a shock. Here once more she was made aware of a painful reality rudely at variance with her psychotic phantasy. But the voice still kept on—especially persistent at night—thus preventing an entire breaking down of her psychosis. She found herself confronted by the necessity of adapting her psyche to a new and intolerable situation. And her psychotic productivity proved itself adequate to the requirement. Any normal adaptation was impossible while the voice persisted; for it was, as it were, the spokesman of her deep-rooted complex centering around Mr. X; and whatever disintegrating influences were brought to bear upon the psychosis were neutralized by this hallucinatory presence. Her adaptation necessarily had to be psychopathic, and the natural trend for her to take was to retreat into the paranoid refuge of persecutory ideas directed against the object loved. (She had already evidenced this tendency in complaints in the office, etc., and in her previous misgivings as to her lover's integrity.) So we find the voice becoming derisive: she thought he made remarks about some scars on her neck (she had had tuberculous glands); he called her nasty names. She reported him for this and for "glaring" at her and for "reading" her mind. She thought that he caused her "mind to break" so

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that her work was being done by " another part " of her. Thought that he ought to pay all the expenses of her illness because it was " his fault." She became so incensed at him that one day she called him " a nigger."

A less-marked paranoid condition, it will be remembered, was presented by the patient some eight months earlier when the voice first made its appearance—" railing " at her, as she said. But at that period her libido was early transformed from its paranoid tendency into the love and marriage phantasy. But now she found her outlet in the full paranoid satisfaction manifested, in part, in the accusatory letters which determined her consignment to the hospital, a description of which introduces this paper, and it may be said that with the patient's entrance into the hospital, the psychosis began its phase of disintegration.

Isolated from everyone but the physicians and nurses, she cooperated most favorably from the beginning of the analysis; she was readily accessible and early began to manifest insight into the situation, though this understanding was at first difficult to maintain except during interviews because of the persistence of the voice which did not disappear for about three weeks. At the very beginning of the treatment she said that while she felt sure that it was really his voice, she could be convinced *for the time* that it was not. By and by she became entirely satisfied that the voice was but the echo of her own thoughts. The patient's mental alertness and inherent good nature, with a very practical view of the business side of life, coupled with the fact that she ate heartily and was soon sleeping well, contributed substantially to the reduction of her psychosis. A patient of this make-up rather frequently anticipates the interpretation of psychic symptoms, thus presenting, what we might call, a kind of spontaneous auto-psychoanalysis. This anticipatory grasp of the situation seemed to occur in Miss Z's case in an unusual degree. She appeared readily to appreciate the fact that she had been in love with Mr. X all along, and that the voice still persisted because she was not as yet able to sublimate her perfectly natural passion. The mechanism of the marriage incident as a wish fulfilment, and of the letters and complaints regarding Mr. X as defensive barriers against her realization of the real state of affairs, seemed to become acceptable to her with less elucidation than is usually required.

During the days of readjustment, and with the establishment of the patient's resignation, an interesting phenomenon occurred: with the disappearance of the voice her interest in Mr. X practically vanished. She began to display the most exacting religious scruples. She searched her past life for offenses committed; she could not rest until her mother had been paid 50 cents which she (Miss Z) had years before appropriated as part of her own church contribution when she had been told to deposit it as her mother's contribution; a letter had to be written to an uncle regarding a small sum which she had secretly borrowed from him years previously and had not paid, and which she had forgotten all about until this time; a box of candy presented to her on Sunday, because of the possibility that it might have been sinfully purchased on the Sabbath, could not be eaten. (The fact of her anxieties and scruples revolving so definitely about matters pertaining to money, bears out other indications pointing to earlier persistent anoeroticism.) She constantly kept a Bible in her hands. (It is interesting to note that she kept talking about passages concerning the "submission of wives to husbands.") She now became overwhelmed by fear of what she termed "the spirit."

This intimate association of the emotions centering about sex, religion and fear, with the easy displacement of one by another, occurred conspicuously throughout the psychosis; and clearly evinced the existence of deep-rooted complexes. It seems well, therefore, to inquire into the dynamics determining her particular sex-religion-fear type of reaction. A dramatic instance of this complex situation was noted on the night of the marriage fantasy when, it will be remembered, the patient's pleasure in Mr. X's presence was suddenly dispelled by the appearance of the Christ vision, bringing with it terror of the "Spirit." The transition at that time was swift and transitory; we now, as the psychosis gradually subsides, see the same mechanism in operation—but slow and deliberate in execution—a like passing over of the patient's libido from definite sexual expression (interest in Mr. X) to its expression in religious fervor, accompanied by her former fear of the "Spirit." We find in the patient early signs of unusual sex consciousness; as a very young child she was extremely shy and sensitive; there seems to have been a strong father-daughter complex; she early conceived the idea that her father

did not like her; she "stood in awe of him"; in her own words, "one look from him would make me cry." The element of fear through her father, attaches itself both to the feelings associated with sex and those incident to religion. The puritanical father had always been harsh in his insistence upon religious observances. Thus the child's early religious impressions became colored by the same feelings of fear and awe with which she surrounded her father. His religious restrictions conflicted with her lively disposition and natural desire for a good time. (We find the results of this conflict reflected throughout her life in the constantly recurring idea that anything which gave her pleasure must be in some way sinful.) After puberty, when she was finding especial pleasure in the society of boys or men, the conflict would at times become obsessive—particularly during revival meetings. She would want to become converted, but would hold back because she was afraid that then she could not have a good time; she thought if she "got religion," there would never be "any more fun" for her. (About a year previous to the oncoming of the psychosis she had "hit the Billy Sunday trail," after days of turbulent misgivings as to the step; and after it was done, had declared that she "did not know" what she "was doing at the time.") Following puberty the sex element came strongly into the foreground; from her fourteenth year there was a story of struggle against what she called "the animal nature" in her; her pleasure concept, it seems, began to translate itself consciously almost wholly in terms of emotions immediately concerned with sex. In the light of these childhood and adolescent impressions, the psychology of her reactions during her psychosis becomes clear. For, as throughout childhood experience, pleasure had always been interrupted by religious restraints, so now her pleasure—in Mr. X—(in her mind sinful, and at this time in large part consciously a sex emotion) becomes easily displaced by ideas of religion, carrying with it as of old the element of fear—at that time fear of her father; now symbolized as fear of a greater authority, the "Spirit." (The identification of father and lover and Christ has been conspicuous throughout the case.)

It is, therefore, in view of the psychological determinants enumerated, logical that the patient, with the recedence of Mr. X's voice, should come under the domination of the "Spirit" and turn fearfully to scrupulous religious observances.

Though it is not the purpose in this paper to go much below surface manifestations into intricate mechanisms, it seems well to comment briefly in regard to the paranoid tendencies exhibited by this patient. These were noticeably shown during the evolution of the psychosis, culminating forcibly in the letters. This tendency is of special interest in view of the characteristics pointing to the existence of marked homosexuality. There seems to be no doubt that there was an early fixation of her libido upon herself—Narcissism. Her attitude toward her father, together with the notable autismus, evidences such a state of affairs. She felt that he did not like her. The consequent introverted erotomania is shown throughout her girlhood and young womanhood. Though she always "had a boy or a man on the brain," as she said, she was forever inventing excuses as to why she shouldn't regard him seriously as a suitor; she was always glad when something broke up the relationship, "when he left town, or had a mother to support," so that marriage was not feasible; she never talked about loving men: "they always loved me," in her own words. "The critical in me helped me to keep men away." So completely was she under the mastery of her autoeroticism, that it was only in the stress of her psychosis that her imprisoned heterosexual instinct even temporarily prevailed. But her dominating homosexuality soon reasserted itself, erecting its defense in ideas of persecution built up against Mr. X.

It is interesting prognostically that these persecutory ideas have vanished (six months later); that she seems entirely indifferent to Mr. X. She says that she is "forever done with men"; "no men for me." While she seems to have profited by the experiences gained in her psychosis, showing more stability, and functioning apparently upon a saner psychological level, it is quite probable that her successful social readjustment is in great measure along the old egocentric path, a regression to her former, more comfortable, infantile, homosexual plane. The fact that her recovery, or adjustment, rests thus upon a repression of the heterosexual, rather than upon a reconstructed world, falls in with her other schizophrenic characteristics and differentiates her from the paranoiac whose adjustment rests not upon repression, but upon a reconstructed world.

Springing evidently from the same groundwork of introversion, or fixation of libido upon herself, as those developments constituting her paranoid behavior, we find throughout her career in other, and diverse forms, the same enhancement of ego. At an early age we find appearing the tendency to withdraw from the world of reality into a fanciful one of her own constructing. On starting to school at the age of six, she indulged in family romancing to such an extent that her teacher made inquiries as to whether or not the child was really an adopted one. The child insisted that her father was "a stranger"—in no way related to her. Analysis brought out the fact that she had had "a good time" with such romancing—in her own words "lots of fun" slipping off into the dream life of her fabricated world. With the enlargement of emotional and psychic experience incident to puberty, and later, we find, characteristically expressing itself in her wider field of activity, the same dwelling in an "ideal," autistically created existence, and this in spite of the fact that all the while she was competently meeting the exactions of a modern business office. The "ideal man" would always come between her and the man or boy at hand. It wasn't the man she cared about, she said, but the high position he could give her. She had a feeling that all her present life was temporary; that "ideal things" awaited her; she would go West; from the time she began to study geography she wanted to travel; she expected "to settle down" in some distant land. In her own words she "lived in the ideal because it was pleasanter"; her "head was full of big ideas." She dreamed lately of meeting the President; of being in high society. Her friends were from "big homes—choicey girls."

The lines along which this patient's schizophrenic psychosis developed were early formulated with unusual clearness. This is shown predominantly in the autistic developments. The definite schizophrenia was but a psychotic climax to the patient's well-marked psychologic trend.

She had been able to meet life adequately in spite—much of the time by means of—her autismus. But, finally, a situation arose for the meeting of which this sort of psychic adjustment, upon an infantile plane, proved inadequate; and we find a temporary collapse marked by the patient's retreat into a psychosis.

The clear hysteriform and psychogenic groundwork out of which this psychosis seems to have developed, and the healthy level at which affectivity has been maintained, warrants one in assuming that such a patient may perhaps find a permanent psychologic level upon which to meet life, possibly even more adequately than that upon which she met it previous to her psychosis.

We are able to add that during the year since the reading of this paper the patient seems to have made her social adjustment adequately. She has carried on her office work with such efficiency as to have warranted receiving an important promotion.

DISCUSSION.

DR. WHITE.—I was very much interested in the case presented by Dr. Wholey. That is the sort of case history I like to hear; it goes into details so one can know what has happened in the life of the individual. It opens up the whole subject and there are two or three things especially interesting. The fact that the patient all along was rather inclined to doubt or disbelieve in her own hallucinations. I think that is rather common. I had it recently well illustrated by the case of an exceedingly intelligent man, a very scientific man, a man interested in natural science and capable of observing matters closely. He came to Washington for the express purpose of shooting somebody. After the situation had quieted down, he said it never seemed to him that the "somebody" Smith that he came to shoot was a real person; it seemed an untrue personality; and that is exactly what it was. There is only one way to look at this whole group of symptoms which I don't think was touched upon. That is to look upon them from the point of view of the value of antipathic or painful emotions. This woman is driven in all directions and if you will see what nature is trying to do with her, you will see that nature is trying to drive her along the path of her biological duty. She has a great deal of sex feeling, the natural goal of which is toward reproduction; but it never reached this development. Therefore, when she tries to stray away, nature says "You get out of this path and go along the other way"; and so she expresses all kinds of paranoid ideas, distress of every description and she finally endeavors to deal with the whole subject by transferring from the field of complete sexuality to a spiritual sublimation by interesting herself in religious matters; and in doing this she endeavors to lay aside her neurotic manifestations. I think that her desire to pay her mother the 50 cents which she owed was an indication that she wanted to lay aside all kinds of her neurotic symptoms; to dispense with them entirely and to get free from her moorings which attached her to lower ends than the biological ones. Now dealing with such cases is very difficult; sometimes they can be managed well and sometimes they can't; but the doctor was right when he said there was a psychological level at which they can with a great amount of comfort

get along; they can get on at a certain level of adjustment and the psychoanalytic method offers the best means of getting the patient at that level, because it is the only method that helps the patient appreciate his own difficulties in an intelligent way so that he can appreciate a mental attitude and know what the whole thing means. It is just in that way that the psychoanalytic method has great value in institutions.

I am quite sure that we help a great many of our patients, perhaps not to complete recovery, but to comfort and efficiency by bringing out for them the actual concrete problems so that they can intelligently and emotionally understand what it is and all about it and do something about it; and that this is far better than just adopting a policy of passing by the hallucinations and without knowing what it is all about.

Dr. C. G. Hill.—I am sure we are indebted to Dr. Wholey for his very interesting and graphic clinical picture of a familiar type of psychosis. To me, it very closely resembles a typical case of paranoia, and I fail to see how the teachings of Freud throw any light on the subject. The formidable Greek word "Schizo-phrenic" is derived from "schizo," to split or cleft, and "phren," the mind, and literally means "a split mind," and from this translation, I don't think it would be amiss to class these abnormal psychologists, who follow so literally the teachings of Freud, as being possessed of a "schizo-phrenic psychosis" themselves.

Furthermore, I fail to see how the teachings of Freud give us any better understanding of the case or offer us any assistance in its treatment. They have beclouded rather than elucidated our study of such cases, and as for their treatment, I would rather trust to the common sense of an old-fashioned grandmother than to the uncertain and misleading suggestions of Freud and his school.

Dr. Wholey.—One of the striking features about this case is its extraordinarily large psychogenetic content. It lends itself to psychoanalysis with the same facility and promise as one discovers in a case which would be regarded as purely hysteriform or psychogenetic. Hence it is important in revealing the rôle which may be played by psychogenetic factors in the development of certain cases of dementia precox. The question arises as to how far such a case as the one under consideration may present certain symptoms which we have regarded as pathognomonic of dementia precox, and yet recover. May not some of the complete recoveries, so-called, be accounted for upon the hypothesis of such a psychogenetic basis? A recognition of the possibly psychogenetic content in such cases precludes that static viewpoint which regards the condition as irretrievable, and thus tends to lessen the effort to bring the patient back to a working psychological level.

A circumstance in this case which seems to me of valuable diagnostic import, is the fact that the patient's affectivity maintained its integrity and driving force upon such a wholesome level. It thus differs from cases of definite precox where the affective side of the individual becomes more or less paretic or bound up at lower integrative levels. I believe it was largely

the maintenance of this affectivity which finally enabled my patient to get back to a level upon which she could again function in the business world.

In regard to Dr. Hill's question as to whether the solution might not have been found in the marriage of the individual, there seems to be a rather commonly held opinion that such a step would solve the troubles of these persons. This is a matter which must be considered, if at all, with extreme caution. To apply such a remedy universally would be just as apt to bring about greater harm as to solve the problem. The struggle in such patients is ordinarily highly moral or ethical in nature and must be solved on grounds compatible with their psychical makeup.

Dr. Forster.—I was quite interested in this case, because I had a similar one, and in endeavoring to adjust this clever girl I made many experiments and they are all failures. At last she developed the thought that so long as she remained in the institution she could never get married. She planned her own escape which she made successfully. I would have been glad to have helped her out; had she told me about it, I would not have detained her. She left the institution and worked out her own future. She has remained, according to all accounts, very well; has succeeded where we failed.

get along; they can get on at a certain level of adjustment and the psychoanalytic method offers the best means of getting the patient at that level, because it is the only method that helps the patient appreciate his own difficulties in an intelligent way so that he can appreciate a mental attitude and know what the whole thing means. It is just in that way that the psychoanalytic method has great value in institutions.

I am quite sure that we help a great many of our patients, perhaps not to complete recovery, but to comfort and efficiency by bringing out for them the actual concrete problems so that they can intelligently and emotionally understand what it is and all about it and do something about it; and that this is far better than just adopting a policy of passing by the hallucinations and without knowing what it is all about.

Dr. C. G. Hill.—I am sure we are indebted to Dr. Wholey for his very interesting and graphic clinical picture of a familiar type of psychosis. To me, it very closely resembles a typical case of paranoia, and I fail to see how the teachings of Freud throw any light on the subject. The formidable Greek word "Schizo-phrenic" is derived from "schizo," to split or cleft, and "phren," the mind, and literally means "a split mind," and from this translation, I don't think it would be amiss to class these abnormal psychologists, who follow so literally the teachings of Freud, as being possessed of a "schizo-phrenic psychosis" themselves.

Furthermore, I fail to see how the teachings of Freud give us any better understanding of the case or offer us any assistance in its treatment. They have beclouded rather than elucidated our study of such cases, and as for their treatment, I would rather trust to the common sense of an old-fashioned grandmother than to the uncertain and misleading suggestions of Freud and his school.

Dr. Wholey.—One of the striking features about this case is its extraordinarily large psychogenetic content. It lends itself to psychoanalysis with the same facility and promise as one discovers in a case which would be regarded as purely hysteriform or psychogenetic. Hence it is important in revealing the rôle which may be played by psychogenetic factors in the development of certain cases of dementia precox. The question arises as to how far such a case as the one under consideration may present certain symptoms which we have regarded as pathognomonic of dementia precox, and yet recover. May not some of the complete recoveries, so-called, be accounted for upon the hypothesis of such a psychogenetic basis? A recognition of the possibly psychogenetic content in such cases precludes that static viewpoint which regards the condition as irretrievable, and thus tends to lessen the effort to bring the patient back to a working psychological level.

A circumstance in this case which seems to me of valuable diagnostic import, is the fact that the patient's affectivity maintained its integrity and driving force upon such a wholesome level. It thus differs from cases of definite precox where the affective side of the individual becomes more or less paretic or bound up at lower integrative levels. I believe it was largely

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PSYCHOANALYTIC TENDENCIES.*

By WILLIAM A. WHITE, M. D.,
Superintendent, Government Hospital for the Insane, Washington, D. C.

Psychoanalysis is thought of by many as a movement in psychotherapy which attempts to set things right by first seeking for the explanation of what is wrong in terms of sexuality. Perhaps it is true that there was and is especial emphasis placed upon sexual etiology by psychoanalysis but it is equally true that its critics and detractors have gone to the other extreme and desexualized life to a point that is at once rendered ridiculous to anyone who with eyes to see and ears to hear will look about him and see what people are doing and hear what they are talking about. Rather strangely these same critics did not raise a similar outcry at the demonstration of the luetic etiology of paresis nor at the increasing body of evidence that is accumulating to show the ever deeper importance of syphilis in every department of medicine. Yet all this is nothing if not sexual, but so well hidden behind a biologically perfectly respectable microorganism that the susceptibilities are saved from too crude a shock.

However, everything must have a beginning and beginnings are apt to be crude; arguments are supported with heat and attacked with rancor in just that proportion in which neither side know just exactly what they are defending or attacking. But these early skirmishes furnish the means whereby concepts are more clearly formulated and positions more definitely assumed. In this way the whole controversy settles down to a saner level, the distortions of personal feeling fade away, a just examination of claims takes their place, and we begin to really learn for the first time the nature and value of a new movement and to see it in its true relations.

I think we have travelled along the psychoanalytic roadway until we have come to such a place and therefore it is worth while to briefly summarize the leading features of our present position.

* Read at the seventy-second annual meeting of the American Medico-Psychological Association, New Orleans, La., April 4-7, 1916.

In the early days of psychoanalysis Freud advanced and held the theory of sexual trauma in infancy as the cause of the neuroses. This theory, although still attacked, has been abandoned by him this many a year. In its place, however, Freud holds to the theory of fixation as the principal cause, while Jung emphasizes the actual conflict, that is, the present difficulty, as the cause. The distinction is as between a drag back and a push back, in either case regression, the real question being the definition of the dynamic principle back of the regression. The place of the theory of infantile trauma may be said to have been taken by the theory of the incest complex as the root complex in all neuroses. This theory was received with rather poor grace, which was natural, until its meaning became better understood. The incest complex was pointed out by Jung to be something all have to deal with, and not merely neurotics. It represents a stage in psycho-sexual development. People become neurotics simply because they do not deal with this problem successfully. The incest complex belongs therefore in the developmental scheme. In broad general terms it represents a continuing dependence, symbolized by dependence on the parents, which has a pleasure and so a sexual motive. The question no longer is, what path is the individual on? The developmental path is the same for all of us. The question therefore becomes, how far has the individual progressed along that path?

Herein, in the formulation of the answer to this question lies one of the greatest of the contributions to the problems of psychiatry which psychoanalysis has made. Namely, the genetic concept of the psyche. Of course the genetic concept did not originate with Freud or the Freudians, but it was Freud who gave it a practical meaning for psychopathology, more particularly by the formulation of the hypothesis of the unconscious and the development of a technique—psychoanalysis—for the unraveling of that past.

The concept of a history for every psychological structure, of an embryology and a comparative anatomy for each psychic fact, so to speak, has forever relegated the mere descriptive psychology of the psychoses and neuroses to the background and raised psychopathology to an interpretative level—a level in which the symptoms are no longer accepted at their face value, but only in the light of their meanings.

The only way in which such a concept as this could receive adequate formulation was with the aid of an energic concept of psychic force, expressed by various terms—libido, hormé, elan vital—whereby something was posited of which this genetic history could be the expression. This energy, the libido, call it what you will, is conceived as the great creative force which animates all living nature, perhaps a bit of the great cosmic energy, an hypothesis which may seem rather ambitious, but which is fully warranted by its pragmatic results so long as its true status of an hypothesis is fully borne in mind, namely, as a tool only which we may use to cut through our present limitations into the regions of the unknown.

Coupled with this theory of the libido as energy are the concepts of the "conflict" and of the "will to power" which sees in all biological tendencies an effort to transcend their limitations through the power of development. With these concepts the libido is seen to be at work, not just on one problem, but on many, to be split up in its work throughout the body as represented by the different organs and so the original concept of a dual libido, the self-preservative or nutritional and the race-preservative or sexual, comes to be further subdivided into problems of gastro-intestinal libido, skin libido, eye libido, ear libido, muscle libido, etc., and the problem of partial libido trends issues as a result.

Thus there is arrived at an energic concept of the libido which, operating both in the history of the individual and of the race, serves to effect the problems of integration and of adjustment, at lower levels by means by physico-chemical reactions, at the level of the central nervous system by means of reflexes, at the psychological level by means of symbols and finally at the social level by means of customs, conventions—the *mores*. All of these mechanisms are capable of classification, for practical purposes, either as self- or as race-preservative in their ends. Here you see we are a long way from considering just sexuality which attaches itself only to concretely race-preservative actions, but which is, of course, and this is a very different thing, at the root of all of this class of manifestations.

All this, too, it will be seen, does away with that old bugbear the relations of mind and body. Such a dualistic concept no longer finds a place in this newer way of looking at the phenomena which

sees only a progressive development in the efficiency of handling energy, the development of different stages, levels, phylogenetically more recent ways of energy transformation. This doing away with the dualistic concept of mind and body has been greatly aided by our increased knowledge of the parts played by the endocrine glands and the vegetative nervous system with its proprioceptive functions and its relations to affective manifestations as against the functions of the exteroceptors which arrange for the projicient functions of the nervous system.

Now comes Adler. While heretofore the "conflict" was conceived of in purely psychological terms, he attempted to show why the conflict took the special form it did. His concept of inferior organs was an effort to answer this question. In the strivings of the individual for complete masculinity, that is for the most complete development of power possible, the inferior organ becomes the storm center, it is the place about which the conflict rages. Here is where the individual feels his inferiority and so here is where he makes his greatest effort. We do not succeed by having our path made smooth, but by the overcoming of obstacles. So Demosthenes became a great orator, Beethoven was deaf, gluttons and cooks have gastro-intestinal inferiority and it is precisely in the mouths and throats of singers, and public speakers that the greatest number of defects are found. In other words he is dealing with the problem of partial libido trends and the modifications which are wrought as a consequence of inferior organs.

In all this we constantly see the idea of development showing through and so we are prepared for a reanimation of the concept of infantilism which heretofore had been utilized almost entirely in an organic setting. The study of the neuroses and the psychoneuroses and more recently of the psychoses has served to emphasize over and over again the infantile character of the reactions upon which these conditions depend. These facts can now be tied up with the older structural descriptions of infantilism with the help of Adler's concept of inferior organs, and such chemical concepts as that of hormones as energy distributors, and so prepare the way for a much more comprehensive attack upon such problems as that raised by Bolton touching the histological evidences of under-development of the cortex as the organic basis of the psychoses. The cortex thus becomes an inferior organ.

On the physiological side the higher forms of conscious activity may be conceived of as conditioned reflexes in the sense of Pawlow, while Watson, as a representative of the new behavioristic school which tends to throw out introspection altogether and rely upon objective methods solely, sees in the conditioned reflex the explanation of the hysterical conversion phenomena.

In the realms of philology, comparative religion, folk-lore the enormous material that has been collected by such men as Kleinpaul, Inman, Sumner, and later and particularly by the Liverpool anthropologist, Frazer, has been worked over according to these modern concepts by Abraham, Sachs, Riklin, Freud, Silberer, and many others.

In philosophy, psychoanalysis allies itself with the pragmatic movement and with dynamism especially as set forth by Bergson. I especially call your attention in this connection to his discussion of the problem of perception in the first chapter of his "Matter and Memory." Further than this, on the philosophical side, it goes without saying that psychoanalysis is humanistic in the true Protagorean sense.

This, as I see it, is the present-day setting of the psychoanalytic movement. It is a movement which calls for a changed viewpoint with reference to psychological facts, in fact truly a "transvaluation of values" in that it no longer views the individual as a subject for laboratory experiment but deals with human beings in the raw, so to speak, as the doctor really sees them. It takes cognizance of their aspirations and their weaknesses, their hopes and their fears and so refuses to see them as they would prefer to be seen, surrounded by an artificial halo. It has learned that such halos only too often serve to blind our vision to the real personality within, and that man, after all, is "human, all too human," never as bad as he is sometimes painted by the realist, rarely as good as the idealist would have us believe, but always, always striving. Good and bad are but relative terms indicating success or failure in the problem of development so that back of the worst failures can always be found that power which makes for good, while in the lives of the best are evidences, over and over again, of failure, and so psychoanalysis refuses to be led astray by appearances, but endeavors to strike at once at the root of appearances, to deal with essentials and not with surface indications. In other words it is essentially

pragmatic. It does not believe in preaching ideals when preaching ideals does not accomplish anything and yet it is by no means without ideals, but is convinced that ideals can only have dynamic worth when they are given practical working values. The change in the attitude towards the use of alcohol has come about, not as a result of preaching based upon academic distinctions of right and wrong, but because the stress of modern life has made such demands upon the individual that there is no longer any place for the man who drinks. The appeal to the pocket-book is a much more prosaic appeal than the appeal to an abstract ethics or to religious principles, but the fact that we cannot escape recognizing is that it works and they don't. Save the individual from the hell of alcohol first and then there remains something to work with, let him go to his alcoholic hell and then all the effort must be expended in trying to reclaim him, an effort that we know is only too infrequently successful and if it succeeds we are only at best where we might have started from. The same thing might be said of the problem of syphilis. When it is fully appreciated that the syphilitic is potentially just as great a risk as the alcoholic then there will gradually grow up a social organization which will have no place for him. This will have a far greater beneficial end result than being horror-struck by sinfulness with our heads hidden in the sand and our eyes blinded to its true meanings.

Psychoanalysis, because it looks at a man's activities from a different angle must of course see in them different meanings. And so the history of all man's efforts, all his strivings, in short the history of culture in its broadest meaning must all be rewritten in the light of this new point of view.

But it must not be lost sight of, by us at least, that psychoanalysis had its origin as a therapeutic endeavor and it is as a means of therapy that we are most interested in it. Leaving out of consideration at this time its direct therapeutic value in the psychoses, and I am personally convinced that it has a distinct value, it certainly has a very great indirect value.

In the first place, we, for the first time are coming to understand the psychological meanings of the symptoms with which we have so long been familiar and by so understanding them must of necessity come to a much more comprehensive idea of what the psychosis as a whole means in the history of the individual. In the

second place we are coming to understand how many of the measures which have been sanctioned by long usage produce their beneficial effects and so can use them much more intelligently. And in the third place we are able, as never before, to study the mechanism of recovery and thus learn how patients get well and so, at least, do nothing to hinder recovery and in the end learn how to further it. We are entering upon a period of the natural history method of studying the psychoses which includes both their individual and their racial history.

To my mind psychoanalysis has, by its record of accomplishments, sufficiently justified itself and the time has come when it must be seriously considered as a therapeutic method of attack for use in large public hospitals for the so-called insane. The results will not be miraculous and the immediate gains may seem small, out of all proportion to the effort expended. But such is the demand of progress—great effort and apparently small gain. If, however, the results are measured in all their ramifications, in the more intelligent grasp of the problems, in the heightened esprit de corps of the medical staff, in the increased confidence of patients and relatives that at least something is really being done, it will be seen that they are made of the very stuff of progress, of development, of success.

Psychoanalysis has therefore finally, so to speak, broken its way through the line of defenses which surrounded the accepted methods of study of abnormal mental phenomena which had acquired the sanction of age and so become static and is now found at the very center of inquiry, its ramifications touching all problems and so having to be reckoned with at every point. It is at once a broader and a deeper way of looking at things, it brings unity where before there was multiplicity, it tends to bring all mental facts together in a larger generalization and so must, in its end results, raise psychopathology to a higher plane.

DISCUSSION.

DR. BURR.—Dr. White is one of those men who "sees clear and thinks straight." He has great facility in approximating the head of the hammer to that of the nail. In a few words, at the Baltimore meeting, he swept away the mist that had settled down upon the Association after a contra psychoanalytic paper in that body and I feel that he is deserving of hearty thanks for this admirable presentation of his subject.

While I agree with what the President said yesterday that it is not well for us to laud in a perfunctory way papers offered here, I believe that when one is so tremendously interesting as this, it deserves at least a word of praise.

DR. SOUTHARD.—I do not wish to strike a discordant note; but I know that what I say can do nothing but elicit one of those brilliant come-backs so characteristic of Dr. White. It seems to me that the meed of praise allotted to Freud by Dr. White would be warranted only by some extraordinary discovery, such as the law of conservation of energy or the Darwinian principle. I believe it will damage the real future of Freudism if it be too extravagantly praised.

In the first place, Dr. White says that critics should not attack Freud for errors concerning the hypothesis of infantile psychic trauma, so-called; for Freud has now given up that hypothesis in favor of another, viz., that of the incest-complex. But why should praise be accorded to Freud for having led us up a theoretical cul-de-sac and then led us out again. I am reminded of an old truant-officer who encouraged the wayward by dilating on the pleasures of repentance; I myself was well-nigh tempted to acquire those pleasures by "hooking Jack" on purpose. In any event, how soon will the incest-complex be given over for some new hypothesis?

Again, I am far from acknowledging the value of these new kinds of libido commended so highly by Dr. White. When he talks of "liver-libido," "brain-libido," "skin-libido," and the rest, I wonder how much new truth is being conveyed either about the liver, brain, etc., or about the libido itself. How much good can be accomplished by merely attaching a sex label to all sorts of forces? Some may cheat themselves into thinking that they have actually discovered *new* forces, so striking is the new sexual appellation. I think we must all look with suspicion upon all forms of ***hyphenated libido.***

Again, it is cause for astonishment how many eminent workers have been proved by Dr. White to pour grist into the Freudian mill. Sherrington's integrative action; Pawlow's conditioned reflexes; Bayliss and Starling's hormones; Fraser's Golden Bough; Bergson's *élan vital;* everybody's pragmatism, and the like are all Freudian. Why not Darwinian or Newtonian physics, and Aristotelian entelechy? Why not Faraday and Helmholtz? Perhaps all these worthies were actually engaged in lining a vista leading to Freud. I doubt whether Freud himself would claim so much. I myself believe that to claim so much is nothing but ***phagocytosis of theories.***

DR. WHITE.—I don't want to fail for a moment to have a characteristic reaction, to punctuate the last speaker's remarks. They are a very distinct clouding of the issue and very interesting. I was aware that I gave considerable prominence to Freud and as was said the psychoanalytic movement came to be regarded by most people as a parasitic affair and it was attacked on that basis; some of the psychoanalysts themselves disagreed and I think I said that, but as the years go by, these ideas have been found to be not parasitic, but in close harmony with the ideas of the psychologists, the

biologists and all the rest; and because they harmonize with psychoanalysis it is justified. If it continued parasitic, then you should eliminate it, but it is not; it fits in. It goes along with the rest of human knowledge in its various fields. Freud is entitled only to credit for abandoning what is wrong. We have all abandoned that from time to time and in the same measure that we don't do it, we are coming in for severe criticism. I don't think it best to proceed any further because I would only compare unfavorably with the distinguished gentleman who has just preceded me.

PSYCHIATRIC ASPECTS OF PELLAGRA.*

By WILLIAM C. SANDY, M. D.,
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Pellagra constitutes one of the most important and difficult features of South Carolina psychiatric work. Ever since Babcock first published in 1907 the existence of pellagra at the State Hospital, the attention of the public has been directed each year by the report of the hospital to this ever increasing problem. Hospital workers in most sections of the country probably do not appreciate the magnitude of this problem, but no apology need to be made to those actually acquainted with the situation for again taking up the time of the Association by a discussion of the psychiatric aspects of pellagra.

Within the limits of this paper it will be impossible to discuss adequately the general clinical manifestations of pellagra. Before entering upon a consideration of the psychiatric conditions associated with pellagra, however, a brief statement will be made as to the more common clinical symptoms.

As generally accepted, pellagra is an endemic disorder, often having remissions and recurrences with a course sometimes extending over years. Pellagra makes its appearance most frequently in the spring of the year, but may occur at any time. The etiology of pellagra seems to be far from being settled, the advocates of the corn, the dietetic and other theories being still about equally vehement in their contentions.

Pellagra is characterized by gastro-intestinal, skin, and nervous and mental symptoms. These sets of symptoms are associated in varying degrees, often one or two of them being absent or, so to speak, latent.

It is common to find the mucous membrane of the mouth and tongue, especially the tip of the latter, redder than normal and the mouth inflamed and painful. There are more or less marked

* Read at the seventy-second annual meeting of the American Medico-Psychological Association, New Orleans, La., April 4-7, 1916.

gastro-intestinal disturbances varying from a type characterized by mild indigestion or dyspepsia to marked gastric symptoms, anorexia, vomiting, and diarrhœa alone, or associated with alternating constipation. Subjectively, there are sensations of pain or disagreeable burning in the region of the stomach.

The skin of the extensor surfaces of the forearms, elbows, and often legs, together with the backs of the hands and feet, are symmetrically involved. There is a peculiar collar-like eruption on the neck. The eruption may be erythematous, or eczematous-like dermatitis, varying from a scaly roughness to bullæ or raw, moist discharging surfaces. Should the eruption disappear a chocolate colored, sharply defined discoloration commonly remains. Moist seborrhœa about the nose and mouth is not unusual.

A variety of nervous symptoms and physical signs have been observed, consisting of various paræsthesias, anæsthesias, hyperæsthesias, tremors, paralysis (in these the relationship to pellagra appearing often, if not always, to be coincident) and alteration of deep reflexes.

It is impossible to estimate accurately the number of cases of pellagra at present in South Carolina. According to Dr. James A. Haynes, State Health Officer, there were 400 cases in 1909, while in 1914 there were 6000 cases. At any rate, there has been a steady and alarming increase of pellagra, the situation warranting the most serious consideration.

In taking up the psychiatric manifestations of pellagra, it is the purpose of the writer to direct the attention principally to the types of psychoses associated with pellagra as observed during the last half of the year 1915, at the South Carolina Hospital for the Insane.

A glance at the hospital statistics for that period reveals a number of rather striking facts. During the six months there were admitted 606 patients, of whom 160, or over 26 per cent were pellagrins, that is, had some actual clinical manifestation of the disease. Of these pellagrins, the largest number were white women, the others in reverse order of frequency being colored women, colored men, and white men. During the six months, there were admitted 12 less white than colored patients, but six more white pellagrins than colored. The greatest number were admitted in July, the least in October.

There appears to be a wider range of age limit of incidence among the males than among the females. The most frequent ages among the males were from 20 to 70, among the females, 20 to 50. Of the males, over 84 per cent of the whites and 94 per cent of the negroes were admitted between the ages 20 to 70, while of the females, 90 per cent of the whites and over 78 per cent of the negroes were admitted between the ages 20 to 50.

The large death rate of the hospital has been a source of great concern to those connected with the management. This death rate has been, to a great extent, due to pellagra. Many of the cases reach the hospital in a critical or moribund condition and die within a few days of their admission. Other patients, although not moribund, have had their vital forces so depleted as not to be able to react for treatment.

In a tabulation of the deaths for 12 months, it is seen that over 61 per cent were from pellagra or, in detail, over 52 per cent of the white males, over 51 per cent of the white females, over 53 per cent of the colored males and over 80 per cent of the colored females. The greatest number for any one month died in June, the least in December. It was interesting to note that for the most part, according to the year's statistics, the white and colored females dying from pellagra were at their most productive period, the largest number being between 20 and 40, while the males, especially the colored, were at a more advance age, the largest number being between 50 and 60,

Over 16 per cent of the pellagrins who died had been in the hospital less than 15 days, while over 46 per cent had been under hospital care less than two months. When the chronic nature of pellagra is considered, it can readily be seen that a large proportion of the patients are admitted in such a serious condition that there is little, if any, hope that they will react favorably to the treatment.

Forty-nine cases, or over 14 per cent of the pellagrins dying during the year 1915 had been in the hospital from one to five years. Twenty-one cases had been patients from 5 to 15 years. It was impossible to prove that any one of these cases developed the pellagra in the hospital. While in a few cases it was a question whether or not there had been a previous manifestation of pellagra, in most of the cases, however, there was an undoubted history or the patient had had attacks of pellagra in former years while in the hospital.

These so-called recurrences were not restricted to any particular part but were scattered over the hospital. Many of these patients were of the præcox type—careless as to their habits, eating little unless urged, although provided with sufficient food and a varied diet. Their faulty habits, coupled with insufficient eating, and the general constitutional deterioration which all the former implies seemed to have a real bearing on the return of the pellagra and the fatal outcome.

During the period in which the writer has been connected with the South Carolina State Hospital, a classification closely allied to the New York State formulation has been adhered to. Since July 1, 1915, all patients admitted have been examined by accepted psychiatric methods, presented at staff meeting, discussed and diagnosed so far as possible in accordance with this classification. Owing to the fact, however, that pellagra frequently radically modifies or obscures what is apparently an otherwise common clinical picture, it has been deemed advisable for statistical purposes to separate the psychoses associated with pellagra from those of other etiology.

At the very onset, it must be acknowledged that frequently, if not always, the clinical manifestations of a psychosis are the peculiar and characteristic reactions of each individual affected by the etiological factor. That is to say, given the etiology, the clinical symptoms will depend largely upon the type of individual affected and will vary accordingly. So it follows that the exact type of psychosis does not always bear a specific relation to the etiological factor, but rather may be an exaggeration of a more or less common mood swing, natural disposition or constitutional make-up. There may result in individuals subject to abnormal mood fluctuations a manic-depressive-like reaction, while the quiet, reserved, suspicious, seclusive persons with a shut-in-personality, often become the victims of a dementia-præcox-like reaction. It will also be seen later in this discussion that pellagra is often associated with certain organic and functional conditions, the exact significance or relationship of which it is difficult to determine. On the other hand, certain conditions will be described, as for example "infective exhaustive psychoses" and "symptomatic depressions," in which it seems that pellagra has a more direct bearing as a causal factor.

Bearing this in mind and remembering that the cause and mode of action of pellagra are still largely a matter for investigation, a discussion of the types of psychoses will be entered upon. Much of the following discussion is similar to that contained in a paper by the writer presented at the meeting of the National Association for the Study of Pellagra in 1915, but this paper is based upon the statistics of a period twice as long.

One of the most common psychoses associated with pellagra, according to the South Carolina statistics occurring in 35 per cent of the cases, is the infective-exhaustive psychosis. The attention must be called to the fact that this does not mean that the infection theory as to the etiology of pellagra is necessarily favored. The term " infective-exhaustive " is simply applied to psychoses which are analogous to or symptomatically resemble certain infectious conditions. The so-called " typhoid state " may well describe the clinical appearance of many of such cases of pellagra. The infective-exhaustive psychosis is most often characterized by more or less marked delirium, being accompanied by some confusion and disorientation, there frequently being also hallucinations accompanied by more or less agitation and restlessness. Physically, besides well-marked symptoms of pellagra, there are present more or less severe evidence of exhaustion, loss of weight, emaciation, fever, sordes, anorexia, and typhoid facies. In the milder forms of these " delirious pictures," as Singer calls them in his contribution to the report of the Thompson-McFadden Pellagra Commission, and as he pointed out, " the periods of clouding (of consciousness) may be quite brief and episodic. In such cases, in the intervals when consciousness is practically clear, the general attitude is one of symptomatic depression." Infective-exhaustive cases commonly reach the hospital in a critical or moribund condition and the prognosis is frequently bad. A number of the less severe cases, however, recover after several weeks treatment, a clearing of the mental symptoms being synchronous with improvement physically. The development of marked nervous symptoms of the type of central neuritis or cerebral irritations, such as drawing back of the head, jacitations and tremors of the hands, usually means an unfavorable termination. As already stated, pellagra seems to bear an intimate relationship to the infective-exhaustive psychosis as an etiological factor.

According to the present series of cases, the straight manic-depressive group is not so frequently represented among pellagrins, occurring in over 11 per cent of cases. While the ordinary types, namely, the manic, the depressed and the mixed phases, may be seen, it is a noteworthy fact that the manic phase in pellagrins is less often seen than the depressed. It is true that manic features are frequently seen in the infective-exhaustive psychosis and are recognized by such symptoms as flight of ideas, exhilaration, distractibility and psychomotor unrest. In the infective-exhaustive cases, however, such features are temporary and are accompanied by more or less confusion and delirium. On the other hand, the depressed phase is rather frequently met with and is characterized by such usual symptoms as depression, retardation of speech and action and dearth of ideas. In these cases, pellagra seems to be an exciting etiologic factor, perhaps associated with other causes, bringing on an exaggeration, so to speak, of a normal tendency in the individual to be too sanguine or too depressed.

While ordinarily in the manic-depressive group the prognosis is considered one of the best of all psychoses for recovery from the current attack, with a strong probability, however, of future attacks, when associated with pellagra, the prognosis becomes problematical. Patients often fail rapidly, develop symptoms of the infective-exhaustive psychosis and central neuritis, with a fatal outcome.

Related to the depressed form of the manic-depressive psychosis, but being more a border-line condition, are the so-called symptomatic depressions. There were five such cases or three per cent of the total. It has been the experience that certain chronic diseases such as heart disease or malignant disease, are often accompanied by a depression which must be considered as symptomatic of the disease. The depression is not so intense as one expects in manic-depressive cases and lacks many if not all the classical symptoms. Besides there is a marked physical basis for sadness and worry, and, having more or less insight into the significance of his trouble, the patient is depressed over the outlook for the future and his present situation. Such cases may be termed symptomatic depressions. It is often a question as to whether they should be regarded as insane and doubtless many such cases do not reach a hospital for the insane.

Dementia præcox was the mental diagnosis in over 12 per cent of cases. Dementia præcox and allied conditions associated with pellagra have been found to develop in individuals with peculiar personalities, people who are seclusive, unsocial, suspicious and the like. Many such cases are characterized by delusions of persecution and ideas of reference, frequently accompanied by hallucinations of various kinds. A number of cases are from time to time placed in the so-called group allied to dementia præcox the term " allied to " being used because of the presence of some atypical feature such as the onset of the psychosis apparently being acute or late in life. As usual, the prognosis for recovery in the dementia præcox cases from a mental standpoint appears to be uniformly bad although cases do improve sufficiently to leave the hospital. The pellagra element often seems to be incidental or at times it appears to be an exciting cause, aggravating what otherwise might be a latent condition.

Several cases have been observed in which appeared the characteristic clinical symptoms of general paralysis of the insane. The onset occurring around middle life, such physical signs as absent or sluggish pupillary reflex to light, speech and writing defects, swaying in Romberg position, altered deep reflexes, together with disorientation, memory defects, and other evidence of deterioration, all serve to make the picture one of paresis. The laboratory findings, always so important as diagnostic aids and confirmatory evidence in general paralysis, are entirely absent, the Wassermann of the blood and spinal fluid being negative and there being no pleocytosis of the spinal fluid. Such cases commonly die in the end stages of an infective-exhaustive condition with marked symptoms of central neuritis. This type of case has been called " pseudo-paretic " but probably should be included in the infective-exhaustive group. Paresis might, of course, be associated with pellagra.

Several cases of senile psychosis, confusion and simple deterioration, what is commonly designated senile dementia, were observed, which had quite marked physical signs of pellagra. These comprised 10 per cent of the cases under consideration. Several of these responded readily to treatment so far as the pellagra was concerned, the symptoms disappearing, leaving the senile condition. It was difficult to say what relation if any, there was

between the psychosis and the pellagra, the latter perhaps aggravating a condition which may have been largely if not entirely due to senility.

Twenty-three of the series of 160 cases or 14 per cent were left unclassified, it being impossible to arrive at a satisfactory diagnosis, owing either to the lack of a good anamnesis or to the presence of unusual or atypical symptoms. Some of these cases seemed to represent the " slowed-down or simple deteriorated " type spoken of by some writers, others resembled more a neurasthenic condition, still others general paralysis. One case, a white woman aged 35, with marked pellagrous eruption on hands, face and feet, had a partial left hemiplegia upon admission which almost disappeared after two and a half months' residence, when she was paroled. The Wassermann blood serum reaction was negative. Mentally she was clear, but emotional, crying easily and being rather querulous and complaining.

Of the remaining number, three were epileptic imbeciles or idiots, three cases of constitutional inferiority with episodes of some kind, and three were not insane. In the month preceding those in which the cases under consideration were admitted, a case of hysteria and also one of chorea associated with pellagra were under treatment. The latter was so severe that she died the day after admission to the hospital.

In the matter of treatment, whether or not faulty diet is the basis for the development of pellagra, it has long been recognized that a generous, well-balanced diet will materially aid in the recovery of the pellagrin or at least in the disappearance of the active symptoms. Bearing this in mind, the treatment has been largely dietetic, and the importance of a diet consisting of meat every day, milk, eggs and green vegetables is emphasized. Coupled with the proper diet, the necessity of conserving the bodily powers of resistance by rest in bed must be remembered. Aside from diet, rest in bed and proper nursing, the treatment is comparatively unimportant. Symptomatically considered, tonics, intestinal antiseptics and astringents, external applications for the eruption, and so forth, are indicated from time to time. In combating restlessness and delirium, cold sponge baths or cold and tepid packs are of great assistance. In any event, treatment should be instituted

earlier than it has been in the average case which reaches the hospital and should be continued faithfully.

In conclusion, in the series of 160 cases, the infective-exhaustive psychosis was the most frequently appearing, occurring in 35 per cent. The prognosis is often grave, especially when symptoms of cerebral irritation or central neuritis develop.

The manic-depressive psychosis was seen in over 11 per cent, the depressed type being more common than the manic.

In this series, the senile psychoses appeared in 10 per cent, dementia præcox or allied conditions in over 12 per cent, and over 14 per cent were left unclassified. It is often difficult to determine the relation between pellagra and the psychosis.

Pseudo-paretic conditions occur, to be differentiated from general paralysis by the laboratory findings in respect to the blood and spinal fluid. These should probably be placed in the infective-exhaustive group.

It is important to realize that the presence of pellagra in any case is apt to modify not only the course and clinical picture, but to alter seriously the prognosis. Hence the importance for constant prognostic conservatism.

Rest in bed with careful nursing and a proper well-balanced diet appear to be the essential features of the treatment. Treatment should be instituted early and continued faithfully.

MANIC-DEPRESSIVE PSYCHOSIS IN THE NEGRO.*

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The study of mental disorders in the negro race presents certain problems which are of considerable interest to those who are engaged in psychiatric work. The literature dealing with these problems is meager, nor is there unanimity of opinion in regard to the conclusions which have been arrived at by writers whose observations have been confined to patients in different sections of the country.

It is quite evident that studies of a race in its normal environment and in an artificial environment will result in the formation of conclusions widely different, even though these studies have been equally painstaking. However, it would appear that the more nearly normal the environment of the patient, the sounder will be conclusions in regard to the average of the race, other things being equal.

In the southern states the average negro lives under conditions which are natural to him, and in the institutions of these states he is found separated from members of the white race in departments of one hospital, or even in hospitals devoted exclusively to his race, where his only associates are those with whom he has been accustomed to live and where he is cared for by members of his own race. In other sections of the country, the few negro inmates of hospitals for the insane occupy the same quarters as the whites and are in close association with them, sleep in the same dormitories, eat at the same tables and are cared for by nurses of the dominant race. In such unaccustomed association and under circumstances so foreign to their normal manner of life, their conduct must necessarily be influenced and symptoms which would otherwise be manifested must be obscured.

* Read at the seventy-second annual meeting of the American Medico-Psychological Association, New Orleans, La., April 4-7, 1916.

Outside of the southern states, the opinion seems to be held that manic-depressive psychosis is less frequent in the negro than in the white race and that it is rather a disorder of higher civilization which tends to grow more rare as the scale is lowered. If this were true, we should expect to find the disorder more frequent in those sections of the country in which the negro lives in better financial circumstances and is able to secure better educational advantages, but apparently this is not the case. That manic-depressive insanity occurs chiefly in the more highly civilized groups, would if established, bring to light important facts bearing on the pathogenesis of the psychosis and investigations along this line should be continued until the claim has been substantiated or disproved.

In certain psychoses, fundamental reaction types have been recognized to be of the greatest importance, the manner in which the individual handles external and internal difficulties under given circumstances. It has not yet been demonstrated that these reaction tendencies differ in any marked degree in different races, although some observations have pointed in that direction. The negro is generally looked upon as having a more primitive type of mind than the white but the present study shows, nevertheless, that he exhibits the manic-depressive reaction type rather more frequently than does the latter.

The average negro, in his normal environment, is happy, active, boisterous, quick to notice, emotionally unstable and is constantly on the lookout for excitement. His normal emotions become exaggerated with slight cause and their voluble expression is accompanied by motor activity.

It is stated by Dr. Hoch that "patients who develop manic-depressive insanity are described as over-active, vivacious, stirring, or as intense and easily excited, high-strung and enthusiastic and sometimes of violent temper. On the other hand they may be inclined to blue spells, to fight battles over again, prone to worry over trifles and borrow trouble. In some an instability of mood is noted." He further says that "personal traits and the type of psychosis, though not always the same, show a marked tendency to run along similar lines" and "exaggerated emotional traits occur in a considerable proportion of persons who develop manic-depressive psychosis," also that "the symptomatology of manic-

depressive insanity is essentially that of the normal emotional states and the latter are reactions to definite situations which like similar reactions are determined by internal or external mental factors."

If the personal characteristics of the negro have been correctly outlined above, it would appear that this race possesses the very traits which should lead one to expect that manic-depressive psychosis would hold a prominent position among the mental disorders affecting it and that, furthermore, it would more frequently be manifested in the manic form which, as a matter of fact, it is.

However it may be in other sections, owing possibly to artificial environment and immigration of certain types of individuals, in the southern states manic-depressive psychosis is not uncommon in the negro race, but on the contrary it is one of the more frequent forms of mental disorder.

From a review of the reports of the four institutions to which only negroes are admitted, it would appear that there is a lack of uniformity in the application of the term "manic-depressive." In the classification tables of two of these institutions the groups of "allied to manic-depressive psychosis" and "constitutional inferiority" do not appear, so that those cases which are usually found under the former heading are probably included in the manic-depressive group while the transitory excitements and depressions which are often encountered in the latter group may also find place there. Consequently the ratio of manic-depressive psychosis, which is stated to be 36 per cent and 26 per cent respectively in these institutions is notably higher than in others in which the term is more restricted. In a third hospital, only three of the patients admitted within the past year are classified as "manic-depressive," but the older terms acute, chronic and recurrent mania and melancholia are retained. In the fourth of these hospitals for negroes, the classification of Kraepelin is adhered to and its annual report shows that 12.7 per cent of the admissions for the year 1915 exhibited a manic-depressive disorder, a ratio which approximates our own for that year.

By the physicians of the Georgia State Sanitarium, the transitory excitements accompanied by restlessness and boisterousness are not included in the group of cases with which we are concerned

but are rather classed with the allied group, or that of undifferentiated excitement or are considered to be episodes occurring in constitutional inferiors. The diagnosis of this disorder is based upon symptoms which justify its being made in the white race and no disposition to force cases into this group is encountered. In order to exclude the personal factor in diagnosis, each patient, after the history has been taken, is presented before the Medical staff consisting of 14 physicians. If opinion is divided, the patient is later, after six or eight weeks of observation, presented for a second time and if after full discussion no agreement is arrived at, usually remains unclassified. The diagnosis of each case of manic-depressive psychosis, therefore, is not made by a single individual but by the whole staff and this consideration should have some weight in leading to the acceptance of such diagnoses. So while we may accept the results of the observations of others made under different conditions, we must dissent from the opinion that manic-depressive psychosis is a rare disorder among the negroes of the south.

The material upon which this paper is based, consists of the negro admissions to the Georgia State Sanitarium during the past six years. Within that period there have been admitted to the institution 2877 negroes, of whom 501 or 17.4 per cent were diagnosed as manic-depressive. The percentage ratio of this psychosis has varied somewhat from year to year, but on the whole the tendency has been for it to become higher. As is the case with the white race, the proportion of females exceeds that of males.

The accompanying table will show the total negro admissions for the past six years, the number of each sex diagnosed as manic-depressive and the percentage ratio of the psychosis for each year:

Year.	Male.	Female.	Total.	Ratio.
1910	22	36	394	14.7
1911	16	47	418	15.0
1912	29	39	422	16.1
1913	52	45	498	19.4
1914	56	70	531	23.7
1915	43	46	614	14.5
	218	283	2877	17.4

The astonishing rise in the numbers and ratio in the year 1914 is unaccountable, as is the decrease recorded in the following year. The criteria for diagnosis have been the same during the whole period and the increase resulted in especial attention being given to avoid an incorrect grouping. The ratio of the cases allied to manic-depressive followed the course of the larger group, reaching its highest point in 1914, only to decrease in the succeeding year. Equally as great fluctuations, for which no explanation is given, have been observed in the reports of other hospitals from time to time and in several instances they occurred in this same form of disorder.

During the period covered by these observations, 45 per cent of the cases have been discharged and 26 per cent have died, leaving 28.7 per cent which still remain in the institution or are temporarily absent on furlough. It will be seen that the number and ratio of those remaining in the hospital increases with each year as the end of the period is approached. At its close, quite a number of the patients admitted in 1915 had been in the institution for only a few days or weeks.

The following tabulation will show the number of manic-depressive cases admitted during the course of each year, the number discharged, the number remaining in the sanitarium and the ratio of those remaining to those admitted:

Year.	Admitted.	Discharged.	Remaining.	Ratio.
1910	58	35	4	6.8
1911	63	33	6	9.5
1912	68	42	8	11.7
1913	97	49	22	22.6
1914	126	52	43	34.1
1915	89	15	61	68.2
	501	226	144	28.7

Of the 226 patients discharged within the six years, 60 have already been readmitted to the institution. As a rule the psychosis was manifested in the same form as upon the original admission, although in several instances a depressive attack followed a manic attack and vice versa.

It has frequently been stated that in the negro race depressions are comparatively uncommon, and this statement is borne out by the present study. The admissions for 1910 are excluded, as in

many instances the form of attack was not recorded, but in the 443 remaining cases the forms exhibited were as follows:

Manic form	325
Depressed form	62
Circular form	26
Mixed form	23
Form undetermined	7
	443

While it is impossible to secure accurate information in regard to previous attacks, many of which are probably unrecognized even by those of a higher grade of intelligence than the relatives of the patients with whom we are concerned, the following facts were ascertained as to the number of attacks:

One previous attack	114
Two previous attacks	55
Three previous attacks	23
Four previous attacks	8
Five previous attacks	5
Six previous attacks	7
Eight previous attacks	1
Ten previous attacks	1
"Several" previous attacks	32

The number of admissions could be determined with greater accuracy, as almost all of the patients were natives of this state and few of them had ever left its boundaries. The institution being the only one in the state for the insane, the number of former admissions was a matter of record:

One previous admission	95
Two previous admissions	41
Three previous admissions	12
Four previous admissions	3
Five previous admissions	5
Six previous admissions	1
Nine previous admissions	1

The above tables are presented in order to strengthen the proposition that correct diagnoses were made as a general thing and that the statistics for the negro correspond very well to those for the white.

The manifestations of the psychosis are the same in both races in their normal environment and while the elated, active, boisterous

states occur more often in the negro than do the opposite they differ in no respect from the same forms as seen in the white, unless mere volubility is more frequently encountered than a true flight of ideas. The depressed and retarded states are less often interrupted by suicidal attempts, but otherwise they follow the course of similar states in the white race.

The number of deaths which occurred in this series of cases is much larger than would be anticipated in the same number of whites suffering from this psychosis, but the death rate in the negro race, especially among those confined in institutions, is always high and no exception to this rule is noted even in cases of manic-depressive psychosis. Tuberculosis and pellagra were the two most frequent causes of death and, together, were responsible for 54 per cent of the whole number, 26 deaths being attributed to the former disease and 43 to the latter.

Conclusion.—As the result of the study of the statistics given out by institutions in which the negro population is small and those in which it is large, we find a marked discrepancy in the ratio of manic-depressive psychosis in the different hospitals. However, in the latter institutions it is evident that the proportion of such cases is much greater than in the former, even in those in which the same criteria for diagnosis are adopted, and it seems to be demonstrated that in the southern states, at least, this psychosis is by no means rarely met with but that on the contrary it forms one of the larger classification groups.

DISCUSSION.

DR. WHITE.—I just want to say one word in commendation of the work Dr. Green is doing. We have a considerable number of negro patients in the public institutions of this country, and until very recently there has been no effort at all made at a comparative study of their psychotic disturbances. I presume this is particularly due to the fact that institutions exist for negroes alone, and but few for the white and negro together; hence the comparison is not thrust upon the attention of the medical officers, and also because many of you have never had any experience with this race.

This study has been very valuable, and the only work that can be compared with it is the work done at the Government Hospital and that of Dr. Kirby relating to racial peculiarities under the influence of the various psychoses. (A Study in Race Psychopathology by Dr. George H. Kirby, New York State Hospitals Bulletin, November, 1900.) It is a work which

ought to be continued, and I am sure will be of great service to us in throwing light upon many of the difficult questions concerning the colored race.

Dr. Priddy.—The investigations and findings of Dr. Green as stated in his paper confirm the opinion and experience of all of us who have lived in negro sections of the country, and are acquainted with the characteristics of the psychoses most prevalent among the negro race. I think it is a very valuable paper, and hope the doctor will continue his investigations and observations in the different and distinct types among the whites, and favor this Association with the findings and conclusions he has reached.

Dr. M. L. Graves.—It seems to me, gentlemen, that some of the confusion apparent in these statistics might be due to the fact that in this country there are more than nine million negroes and two million of these are mulattoes. I believe that the mental reactions of negroes to the various psychoses and other somatic causes are quite distinct as we view them from the point of view of the negro pure and simple and those of mixed blood. These studies should take into consideration the various reactions in cases intermixed with white blood as in mulattoes and so on down to the common, unadulterated negroes. Moreover I wish to call attention to the fact that manic-depressive insanity as a classification represents merely a clinical syndrome. No doubt it affords a great advance in the study of emotional states, but it is only a temporary classification because it has neither etiological nor pathological foundation. Until we can eliminate the factors of syphilis, alcoholism and the definite causes of fibrosis of the arteries so often seen in the negro, and other nutritional disturbances associated with tuberculosis and with pellagra, it will not be safe to classify the emotional reactions of the negro as representing a definite clinical entity called manic-depressive insanity.

THE MANIC-DEPRESSIVE AND DEMENTIA PRÆCOX PSYCHOSES: THEIR DIFFERENTIAL SYMPTOMATOLOGY.*

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With the advance of medical knowledge and improved diagnostic methods that have come in recent years, psychiatric medicine has lost much of its complexity and mysteriousness.

In former years the young physician began his professional career with little or no conception of mind and its disorders. As a consequence many cases were overlooked or improperly interpreted at a time when there might have been great hope for recovery.

But times have changed and on every hand one is able to observe an enthusiastic interest in matters pertaining to the brain and its functions. The present day graduate, in almost every instance, now has the advantage of a hospital interneship which affords him an excellent opportunity of studying actual cases of mental disease. He invariably finds the problems complex but fascinating and his interest is aroused. Before his hospital training is completed he has acquired a working knowledge of many types of insanity and is able, very often, to recognize signs of impending mental disaster.

This indeed is a most wholesome state of affairs and augurs well for the future benefit of those afflicted with life's greatest tragedy—unsoundness of mind. Furthermore, the time is not far distant when every modern general hospital will have as a part of its equipment, a psychopathic ward, well staffed, well nursed, and well directed, for the scientific treatment of curable cases. This will prove a true advance, as it will provide suitable facilities for the teaching of psychiatry which so long has been neglected.

As I stated a moment ago, there is everywhere manifest a stimulating and growing interest in matters pertaining to diseases of the mind. The diagnosis and classification seems to especially appeal

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to the recent graduate, and it is indeed surprising how often he correctly " suspects " a certain psychosis. In many of the simpler forms, or in those cases which pursue a typical course early recognition is quite commonplace, but in those psychoses that develop atypically, or exhibit manifestations that are out of the ordinary, considerable confusion and perplexity prevails.

This is particularly the case during the developmental period of the manic-depressive and dementia præcox group and very frequently the consultant is called for no other purpose than to make the differentiation.

The object of this thesis is to analyze the symptomatology of these two conditions and to point out in what respects they differ.

The manic-depressive psychosis, so-called, has been known to the medical world for fully half a century. In Europe it is recognized as alternating or circular insanity.

It is characterized by alternating periods of exaltation, depression and sanity and usually pursues one of three different courses:

I. In most cases the phases of mania and melancholia follow each other without interruption and the patients are always insane.

II. In others, at the termination of a complete cycle of the two phases a " respite " occurs when all symptoms become silenced or practically inactive. The duration of this latent period may be brief or prolonged.

III. In a small proportion of the cases a remission or lucid period may appear at the termination of each distinct phase.

In some the periods of exaltation are long and the depression and sanity brief; in others this is reversed. Brief periods of melancholia may alternate with brief periods of mania and the duration of both phases may not be more than three or four months. Occasionally the two-fold attacks may develop within two or three weeks. The depressed period usually persists longer than the maniacal. In some cases the disturbance is ushered in with exaltation which may reach the proportions of an actual frenzy or furor; in others the onset may be that of depression. The maniacal period is usually characterized by rapidity or fleet of ideas, facility and ready flow of language, morbid impulsiveness, and unmotivated gaiety. His talk is prolix; his few witty observations however are spoiled by a large number of common-place and foolish remarks sententiously expressed. Memory is exceedingly acute; inconse-

quential facts are recalled with avidity and nothing is too great for him to undertake. Many indulge in confabulation and untruthfulness and not a few give way to excesses which are beyond the limits of propriety and decency. Exhibitionism is quite a common occurrence among women during this phase of the disease. When the condition follows pregnancy the motherhood of the new-born child is often denied. Usually there is no clouding of intellection, and delusions and hallucinations are rather the exception. Associated with the excess of mental activity there is a corresponding condition of the muscular system (psychomotor unrest). The patient is never at ease, but on the contrary is quite aggressive and disturbed. Oftentimes he becomes unmanageable. Many are boastful, irascible, rush about wildly, jump, yell, and gesticulate as their rapidly changing impulses direct. During the period of exaltation criminal acts may be committed, slanderous and scandalous accusations made against innocent persons and conduct indulged in which may prove embarrassing to relatives.

The depressed stage is quite a different picture and at this point it may be stated that the patient may retire at night a maniac and arise in the morning a melancholiac. This however is rather rare.

Usually the depression develops insidiously. The individual becomes low-spirited, cannot apply himself and is sad and dejected. He finds it difficult to follow a conversation and finally avoids meeting people. He loses his former neatness of appearance and the ordinary events of life no longer interest him. Worst of all he is painfully conscious of his deficiencies. His face depicts his frame of mind. The features are contracted, pinched and expressionless. He passes his friends on the street, unnoticed. In not a few cases, hope of recovery departs, the individual gives up the fight and may even give vent to suicidal impulsions. When the condition is at its height, delusions of ruin, self-accusation, incapacity and culpability may complicate the situation. Others become hypochondriacal and harbor the conviction that their vital organs are destroyed and all is lost. Some will crouch motionless for hours, totally indifferent to their surroundings. At such times they may refuse to eat and maintain a pronounced silence.

The period of lucidity is apt to be a sort of stupid, inactive sanity, lacking in volitional control, full affectiveness and spontaniety. The mental balance goes on oscillating between melancholia and

mania, standing still long enough to raise hope that recovery is at hand. When the individual arrives at this point he feels and appreciates his shortcomings and it is surprising how carefully he avoids those influences which are apt to prove harmful.

The disease is quite common and is the cause of fully sixty-five per cent of mental ill-health. It is a functional condition; affects women more frequently than men and is no respecter of persons. The first attack occurs in most cases before 25 years of age and oftentimes with the suddeness of a thunderbolt out of a clear sky. Younger persons and even children may become afflicted as well as those who are passed 50. It may occur in several members of the same family.

In reality the manic-depressive psychosis is none other than the morbid manifestation of the physiological periodicities to which mankind is heir. One of the most fundamental of laws governing life itself is that of alteration and periodicity of activity and non-activity. What man is there who is not emotionally more elevated or depressed, more active or inactive in mind at certain times? There are thousands of sane men and women who are regularly dull in the morning and more lively in the evening, or the reverse, and who are duller in the winter and more exalted in the summer; who are more irritable at periodic intervals or who are subject to "moods," "cravings," and "tempers" periodically. All have felt the sting of the "blues," which, of course, is purely physiological. There are many normal people who spend their lives in a see-saw between depression and pleasurable exaltation. Such individuals are either gloomy, easily provoked or profoundly depressed by the most inconsequential incidents. At other times they are over-joyous, verbose, hilarious and excitable without sufficient outward cause, but withal are reasonable, perfectly coherent in thought, sound in judgment, and in no wise overstep the physiological limit of sanity. But when the individual whose nervous mechanism is hypersensitive, frail and lacking in resistance, is subjected to any unusual strain or stress, the moods, emotions, and tempers become dominant and over-powering. Hence puberty, pregnancy, menopause, mental shocks, intense disappointments, hopes long deferred, prolonged exertions, failure in business, acute and chronic diseases, or any severe uprising may precipitate a manic-depressive psychosis.

The prognosis is not at all unfavorable. Many make substantial recoveries. Recurrences, however, are exceptionally common. Remissions may be prolonged for years. Certain women, constitutionally predisposed, may suffer a recurrence following each pregnancy.

The diagnosis is made a posteriori and there is never any indication from the symptoms whether an attack of mania or melancholia presenting itself for the first time will be followed or not by attacks of an opposite nature.

Very frequently the patient has exhibited manifestations of abnormal excitability, accessions of unprovoked anger, defiance to discipline, defective volition, and pronounced emotional reactions during childhood. These oftentimes are the forebodings of a future mental disruption and inasmuch as the treatment of a manic-depressive disturbance is essentially in preventive measures, such warnings should not be permitted to continue unheeded. There is also an army of undeveloped cases in the clientele of every psychiatrist and these are the cases that call for our greatest skill in order to keep them from crossing the line where sanity ends and insanity begins.

In the words of Tanzi, dementia præcox is a process of mental disorganization of irregular course which affects susceptible individuals, who in most instances are youthful.

Kraeplin uses the term to include a group of cases which are characterized by a pronounced tendency to psychic deterioration of varying grades.

In any event the disease passes through an acute stage which never wholly subsides and at no time does the patient return to a condition that may be considered normal.

It is a tragic disturbance and occurs usually between the ages of 16 and 20. Is most common in the male sex and constitutes fully 25 per cent of the patient population of state hospitals. Persons who develop dementia præcox as a rule are psychopathically blighted, though not always. Reliable statistics would indicate that the inherited defect is transmitted more frequently on the maternal side. Too often the disease invades the home of the rich and cultured. When it chooses for its prey the only child upon whom has been lavished every advantage of culture and educa-

tion and who perhaps has displayed promise of quite exceptional ability, the situation indeed is a most pathetic one.

The disease as a rule develops insidiously and in many a lack of appreciation and general inefficiency seems to characterize their course in life. Others manifest a tendency to keep by themselves, or to be over-religious, or to indulge in day-dreaming, or immature philosophizing. In the milder cases reticence, bashfulness, and preference for reading while his school mates are at play are early signs which the family may interpret as evidencing unfortunate defects in character and conduct. Among others the first indication is an inability to concentrate or perform mental tasks with the same facility as formerly. Impressions fail to stick and there is often a curious weakness of judgment and lack of interest. The facial expression is also significant and lacks the freshness and attractiveness of normal youth. Many are silly, laugh without cause and mumble to themselves. Others are lethargic and slovenly.

Impulsividity is also pronounced and unprovoked attacks of irritability and destructiveness are common symptoms. Many are cruel and quarrelsome; have no regret for their misdoings and oftentimes are totally devoid of affection for those who are near and dear to them. Self-absorbed and painfully unconcerned they very often stare for hours into vacancy. Some fortunately escape rebellious tendencies and assume an apathetic rather than an aggressive nature. Not a few are entirely unmanageable from the very onset and impulsively run away from home without a single object in view. If apprehended they quietly return as if nothing out of the ordinary had occurred, when in reality they were exposed to many hardships. One case I have in mind, a young girl of wealthy parentage would at the most unexpected moment dash out of the house without cause or anger and sometimes improperly attired, solicit money from strangers on the downtown streets and voluntarily come home and brag about it. This young woman's entire life was that of irregularity and her chief deficiencies were confined to the realm of morbid impulsividity and lack of applicability. The explanation she usually offered for her foolish and purposeless flights was oftentimes grotesquely puerile.

In all these cases the underlying mental picture is a progressive mental weakness and confusion which tends to dementia. During

the developmental period many have considerable insight into their condition, but not the slightest regret, care, or fear for the future dims their serenity.

The course of the malady may pursue a quite rapid course or it may be arrested after a year or two, but it always leaves behind a permanent degree of inefficiency and stupidity which lasts during the remainder of the unfortunate victim's life. Very rarely do they regain sufficient stability to permit them engaging in useful pursuits. Indeed it may be said that many blasted careers and inexplicable life failures result from this affliction. Furthermore large numbers of individuals addicted to a life of vagabondage, shame, pauperism, alcoholism, and prostitution in the lower classes of society and of eccentrics, improvident weaklings and borderline cases in the higher social strata are the victims of dementia præcox.

Three types of the disorder have been recognized, viz., hebephrenia, katatonia and the paranoid form.

Hebephrenia is characterized by the gradual or subacute development of pseudo-attacks of mania and melancholia which invariably are followed by a period of incoherency and stupidity. Marked impulsiveness, spontaneous hilarity, fantastic ideas, verbigeration, irascibility, deadening of the intellect, suicidal or homicidal impulsions with delusions and hallucinatory phenomena are leading manifestations. Most cases develop at puberty. Fully 50 per cent of the cases of dementia præcox are of this type.

The katatonic form presents a clinical picture which indeed is quite unique. The sterotyped positions and movements, the negativism, hypersuggestibility and rigidity of the musculature are particularly individualistic. Many of these patients assume religious or statuesque attitudes which they are able to maintain for hours and seemingly without exhaustion. In not a few instances the facial expression itself is sufficient to suspect the diagnosis.

A condition of negativism may alternate with hypersuggestibility. In the former state the individual is totally indifferent to his surroundings and personal welfare and refuses to talk. Many refuse food and artificial feeding becomes necessary to preserve the patient's life. I personally have had the experience of tube-feeding a katatonic patient for almost a year, and during this long period—11 months to be exact—his facial expression never changed, his

body remained tense and not a word did he utter. Suddenly one morning he awakened, as if out of a deep sleep, and told us a great many incidents that had transpired while he was katatonic. For a while he enjoyed some degree of lucidity, was sociable and dined with other patients. When I last saw him, several years afterwards, he was markedly deteriorated and untidy.

During the stage of hypersuggestibility dementia præcox patients are easily influenced and obey at once the most unreasonable and ridiculous commands. At such times they are totally devoid of fear and will, if not properly safeguarded, attempt perilous feats. Others exhibit an irresistible tendency to repeat names or sentences heard (echolalia), or to speak only in words that are profane and obscene (coprolalia). Some are given to repetition of senseless expressions and the use of sentences devoid of connection (neologisms).

Hallucinations and delusions of an erotic, persecutory or religious coloring characterize the early stage of the disorder, but as the intellectual structure crumbles they lose much of their intensity.

The paranoid form of dementia præcox differs from the other types although symptoms of all three phases may appear in any one patient at some stage of his invalidism. Instead of delusions and hallucinations becoming less assertive as the disease progresses they may persist for years. There is also less deterioration in the paranoid types and consciousness remains quite clear.

Dementia paranoids are invariably troublesome factors in a community and are never able to adapt themselves to their environment. Some of them are enthusiastic in art, politics, and social service, or irreconcilables who contradict themselves and exercise a fierce tyranny on the slightest pretext. Others have the happy faculty of beguiling the public who appraise their intellectual value from outward appearances alone. Others are fantastic in their strivings after a discovery which they believe to be near at hand, such as the manufacture of eggs, etc. Others so engrossed in their grandeur and importance parade as the " Messiah " denouncing all labor as unworthy or unbecoming to one in their exalted state even when a wife and family are sorely in need of food and clothing. Some are self-styled " kings," " queens," " reformers," etc.

In their moods, their sympathies and prejudices—usually irrational as regards both individuals and things—they are extremely

variable and woefully inconsistent. There is never any objective reason or logic in their rapid and strange variations of mind. Some have real talent and all have vivid imaginations, but they lack the capacity of properly weighing the stern realities of life. In their social relations they exhibit strong egoism which is always a part of these unbalanced natures.

Dementia præcox is a serious malady for it sometimes jeopardizes life. The great majority become chronically afflicted and unfit for social life. In institutions many adapt themselves to a regular regime and are capable of performing humble service. A small proportion of the cases, sooner or later, reach a state of partial recovery; are fairly well-behaved and with the exception of harmless mannerisms their conduct in the home may not be objectionable. Kraeplin considers a recovery rate of 12 per cent to be a conservative estimate.

For the conservation of mental health a well-balanced organization affords the greatest protection. But even those who are fortified with a substantially constructed psychism will not be able to resist indefinitely mental assaults if they are hurled at them too often and with great force, for some day they will lose their feeling of security and surrender. Such experiences are not uncommon in those who have suffered innumerable nerve-racking wounds which repeated failures, loss of loved ones, blasted hopes, ill health, and other exhausting influences inflict. Some, it is true, blessed by an unusual heritage of resistive force, have manfully and unflinchingly faced shock after shock, blow after blow, sorrow after sorrow, an actual fusillade of mental wounds, and have emerged with their intellectual functions intact. But the individual who flounders on the treacherous shoals of a manic-depressive disturbance is the one inherently defective in nerve force, or by virtue of an excitable constitution, is particularly ill-adapted to combat the strains and buffetings which a strenuous and rapidly advancing civilization incurs.

It is equally true that many predisposed individuals might escape mental disaster if they could avoid being over-pressed or overstrained. Such persons should not be taxed with the heavy burdens and responsibilities if their future welfare is to be considered. On the other hand there are some so frail and unstable in their reactions that the first severe strain or uprising is sufficient to precipi-

tate a functional psychosis. It is therefore evident that if these malendowed individuals could have arranged for them a life free from antagonistic influences many cases of manic-depressive ill health might be postponed or prevented.

As regards dementia præcox the situation is quite different. Most of these patients are psychopathically tainted and predestined to a future of mental enfeeblement. Bianchi claims to have obtained evidence of an inherited defect in every instance. At the same time bacteriological investigations have disclosed the presence of various micro-organisms. Structural changes have been found in the cortex of advanced cases. The internal secretions also exercise some influence.

In any event dementia-præcox is preeminently a disease of youth; more prevalent among males than females, and apparently unaffected by environment and social status. In other words, all that speaks for culture, refinement, wholesome living, and careful upbringing will not prevent the development of this inexorable malady.

The early life of the individual who becomes afflicted with a manic-depressive disturbance is not infrequently characterized by intellectual alertness and many indeed are scholarly. Some reach a high degree of attainment. On the other hand not more than one-third of the cases of dementia præcox, prior to the development of the disease have been bright and many of them have exhibited during childhood such abnormalities as violent impulsions, eccentricities, excessive ononism, precocious piety, seclusiveness, narrowness of mental outlook, puerility of character, grimaces and lack of affection.

It is therefore evident that the mental traits of those predisposed to a manic-depressive disruption differ in many respects from the behavior and reactions of those doomed to dementia præcox. This alone will sometimes serve to make the differentiation.

The manic-depressive psychosis is marked by a lucidity and an unerring rhythmical alternation of exaltation with depression. The attacks of mania and melancholia occurring in the dementia præcox subject are invariably associated with confusion. Furthermore the typical forms of katatonia are never present in the manic-depressive cases, except as fleeting episodes. The sudden impulses, the stupid smile that sometimes flickers over the face, the stigmata of

degeneration, the marble-like rigidity of the stuporous individual, or some meaningless phrase are extremely significant of dementia præcox.

When an adolescent, who is not neurasthenic, becomes exalted or depressed and expresses hypochondriacal ideas incoherently, dementia præcox is more than likely the proper diagnosis.

Considerable difficulty is encountered in distinguishing between a prolonged period of melancholia and a state of profound confusion. Both are pale with an expressionless physiognomy; both are untidy in personal appearance and seemingly indifferent to their surroundings. Both refuse food; nevertheless the two conditions are essentially different. The contraction of the pupil in the melancholiac and the dilatation in the stuporous patient; the hypertonia in the former and the atony in the latter may serve as valuable differential signs.

Katatonic excitement may be confused with the exalted forms of manic-depressive insanity. The emotional attitude of the manic-depressive is exalted, while that of the katatonic is silly and indifferent. The movements of the katatonic are not purposive while those of the manic-depressive are. The early appearance of hallucinations and senseless delusions are indicative of dementia præcox.

Early in life and especially about the period of puberty an insidiously developing hebephrenic psychosis may be interpreted as a state of functional nervousness. Oftentimes the individual is able to carry out fairly well the daily occupations to which he is accustomed and falters only when serious demands, especially in the form of examinations and independent work are made upon him A careful search and study of the case will more than likely reveal certain phenomena and characteristic peculiarities which will clinch the diagnosis.

Finally it may be said that there is invariably something in the make up of persons afflicted with dementia præcox which the experienced observer has intuitively learned and which serves him in good stead even when distinctive symptoms are absent.

THE PSYCHOLOGY OF HYSTERIA.*

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Hysteria should not be designated a disease, but rather a condition in which are manifested numerous and variable symptoms, simulating almost every disease, but without pathological changes. I shall not attempt to review the various theories of hysteria, and although Janet says "three-fourths of all definitions of hysteria are nearly identical," I should add that these definitions enlighten us very little, for there is no satisfactory one. It is purely a psychological problem, the understanding of which must be approached through studies of psychology, and especially subconscious phenomena. That hysteria may become manifest, we must, first have a suitable subject, one who is, so to speak, temperamentally emotional and readily open to suggestibility. Just as some are more easily hypnotized than others, so are some more susceptible to hysteria, and many authors are agreed as to the similarity between these two conditions, the chief difference being the brevity of the duration of the manifestations seen in hypnotism as compared with the latter. The various paralyses, anæsthesias, and many vasomotor disturbances can be produced by hypnotism; and by post hypnotic suggestion paralyses can be induced which differ in no way from hysteria. Fox says, "there are numerous instances on record of the successful production by means of hypnotic suggestion of dermatographia, inflammation, ulceration, and gangrene. By means of the application of objects with the suggestion that they were hot it was possible to cause skin lesions varying from simple redness to actual ulceration." (Psychopathology of Hysteria, by Fox, p. 168.)

As suggestibility and the subconscious play the most important rôle in hypnotism, so do they in the genesis of hysteria. And this

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is what Janet means when he says that " the underlying mechanism of hysteria is a dissociation of the personality." These dissociated or submerged memory complexes dominate the hysteric, and are the unconscious motives which dominate one's actions. So then for the production of hysteria we must have auto- or hetero-suggestion together with a strong emotional content, which produces ideas in the form of wishes or fears, which ideas with the accompanying emotions are banished to the subconscious, where they dominate and control the actions of the subject. Those who have read Morton Prince's little book, " The Unconscious " cannot fail to see the wonderful working of the subconscious mind, and the great influence it has over shaping our every-day thoughts and actions. It is probable that the greater part of the content of the subconscious (at least the part which mostly influences our conduct) are repressed wishes, wishes which are unethical or of which we are ashamed, or which are selfish; but not all necessarily sexual as Freud believes. So these repressed, submerged, or unconscious wishes control and color our acts, and make us as normal individuals do things whereby we may accomplish those wishes. How much more true it is of the hysteric, whose submerged complexes in the form of unconscious desires for sympathy, retaliation, freedom from work or disagreeable duties, or indemnity in the case of supposed injury, produce or bring about paralyses, anæsthesias, amaurosis, or fits, as means for the fulfilment of their unconscious wishes. A simple example of how a selfish and therefore repressed wish may terminate in its fulfilment is given by some author whom I cannot recall. A man wishes to go to the theater while his wife prefers the opera, but on account of his affection and consideration for the latter he purchases tickets for the opera. He drives the car, consciously intending to go to the opera, but unconsciously drives directly to a distant theater, too late to go to the opera, therefore accomplishing the fulfilment of his repressed and selfish wish. One who has read Freud's " Interpretation of Dreams," is struck by the fact that the interpretation of hysterical symptoms is closely related to that of dreams in that the manifestations of both are the results of repressed thoughts, and represent a fulfilment of a wish or a means to that end.

Morton Prince has shown that by "tapping the subconscious" as is done by crystal gazing, and automatic writing, one can obtain an almost verbatim copy of a letter long ago written by the subject and forgotten as to conscious memory; or the subject may say or write things which she has in vain tried to recall to consciousness. And it is in the same way that the hysteric's subconscious mind can do things, and sustain or suspend the physical functions in a way that is almost and frequently quite impossible with the conscious will.

The essential difference between hypnotism and hysteria is that in the former there is a complete dissociation of personality; and ideas and suggestions given the subject by the operator enter directly the subconscious realm and there have full play giving immediate expression and reaction, uninhibited by the conscious mind, whereas in the hysteric there is only a partial dissociation of personality; only certain repressed ideas, which originally existed in the conscious mind; placed there by auto- or hetero-suggestion, and later submerged with their emotional content, after a long or short interval, give expression and reaction, but also uninhibited by the conscious mind.

There is no difference between hysteria and the so called "traumatic hysteria," the latter being the designation of that which follows an injury, the symptomatology of the two may be identical. If one sustains an injury of the arm for example, which severs or injuries the musculo-spiral nerve, there are found characteristic symptoms due to paralyses of the muscles supplied by this nerve, and an anæsthesia of the skin corresponding to the area supplied by the nerve: loss of tendon reflexes, atrophy and electrical changes in the muscles involved. Such a case is readily diagnosed as traumatic neuritis. If, however, in another case, who has sustained a slight injury of the arm, a contusion, for example, which does not injure the nerve, but which is followed by a paralysis of the arm with anæsthesia, not corresponding to any special anatomical nerve distribution, without atrophy, or electrical changes, or alterations in the tendon reflexes, we can readily diagnose this as hysterical paralysis; and simply because a trauma has preceded it, we are accustomed to designate it more specifically as "traumatic hysteria," or a "traumatic psychoneurosis." In the first case it is very evident that the injury is

the absolute cause of the paralysis; but in the latter case the injury *per se* has nothing to do with the symptoms. The trauma is an excuse, a suggestion, which involves an idea of the injury, which idea is elaborated in the subconscious mind of the individual as a false idea. Accompanying this trauma and based on a false idea that the injury was severe is a desire for remuneration, but in order that this may be obtained, that there may be a fulfilment of the wish, physical symptoms indicative of severe injury must be manifest. But to pretend such would be malingering, unethical and dishonest, so this *idea* is rejected, submerged, and relegated to the subconscious, where unconscious to the subject it causes the various symptoms of hysteria, viz., paralyses, anæsthesias, pains etc., and thereby accomplishes the fulfilment of a repressed wish, which the conscious mind was too honest to do. When these ideas are not repressed, and the subject consciously pretends the symptoms, we call him a malingerer or faker. But whether hysteria follows physical trauma or not, there is an object to be obtained, in the one case remuneration, and in the other sympathy, retaliation, freedom from work or disagreeable duties which otherwise must be faced. The wish to obtain indemnity or to get sympathy, or to shirk duties, is originally a conscious one, but being recognized as unethical is repressed, and in the subconscious mind is elaborated the means by which to obtain or accomplish the end wished. This takes place without the conscious knowledge of the patient and is therefore an unconscious deception in close relation with malingering, which is a conscious deception.

Fox says:—"Even though a patient with hysteric vomiting deliberately simulates hæmatemesis such deception cannot be regarded other than as a manifestation of a pathologic mental state. With no other object than to gain sympathy certainly no moral persons would carry the deception so far as to seek, and to undergo, operations for supposed gastric ulcer. This type of deception is malingering only to the same extent as that of cases of hysteria in which simulated anorexia has terminated in death. Surely, malingering for the purpose of exciting sympathy, or wonder, is as much a symptom of hysteria as a psychic hemiplegia or a psychic amaurosis." (Psychopathology of Hysteria, by Fox, p. 152, 153.) We cannot agree to Dr. Fox's statement. The definition of *Malingerer* is, "one who feigns or induces sickness to avoid

service or to shirk duty." (Standard Dictionary.) It would, therefore, be correct to reverse this statement of Dr. Fox's, and say that a case of psychic hemiplegia or psychic amaurosis is as much a type of deception or malingering as the one who deliberately simulates hæmatemesis, or the malingerer who pretends to have a paralyzed arm. In either case they feign or induce sickness for a purpose, in the one it is a subconscious act, while in the other it is a conscious act. A subconscious deception, as is the case in all subconscious acts, can be maintained for a longer period, more effectually and with less effort than can conscious deception. Both types are pretenders or malingerers, as both set forth or show symptoms which do not exist. The hysteric with gastric pain and hæmatemesis simulating peptic ulcer, and the hysteric with right iliac pain simulating appendicitis, are victims of psychic pains, resulting from the subconscious desire for sympathy or to escape disagreeable duties. These pains are ideas of pain, projected by the subconscious psyche upon somatic parts, where they are interpreted by the conscious mind as real pain due to somatic cause, just as the kinetoscope projects upon a screen, pictures, which, to those who do not understand their origin, might seem real. The conscious mind of the hysteric reasoning from the false premise of the subconscious, in the belief that he has a gastric ulcer or appendicitis, submits willingly to an operation. Some years ago I operated on two cases of right iliac pain and removed normal appendices. They were cases of hysterical pain, and strongly suspected as such before the operations.

That the symptoms of hysteria are means for the fulfilment of a wish, is sometimes quite difficult and may even be impossible to fathom, unless we can reach the submerged complex by psychoanalysis. Those cases in which the symptoms are what was feared, are in reality ones of disfigurement, and may be compared to dreams with a disagreeable content in which there is dream-disfigurement, and in the case of hysteria the disagreeable content serves only as a disguise for what is wished, or fear may cause symptoms as a reaction of defense,—"a psychic elaboration of the normal reaction of defense." Hysteric paralysis may be interpreted as a dissociation from consciousness of the power to move the member involved, and hysteric amaurosis as a dissociation from consciousness of the images and impressions made upon

the retina. So hysteric deafness is a dissociation from consciousness of impressions or sounds made upon the organ of hearing, and hysteric mutism is a "dissociation from consciousness of the faculty of vocal expression of language."

Hysteria may be described as a functional nervous state closely related to hypnotism, characterized by various and peculiar symptoms and phenomena, and dependent on suggestions, either auto or external. These suggestions accompanied by strong emotions produce ideas, in the form of wishes or desires, which ideas become dissociated or submerged memory complexes, and are the unconscious motives which determine the hysteric's symptoms and actions. The symptoms then are the expressions of dissociated or submerged wishes, and are unconscious means for the attainment or fulfilment of a wish. It is a comparatively easy matter as a rule to differentiate between the symptoms due to an organic lesion of the nervous system and the symptoms simulating such and due to hysteria or malingering. But to me, I must admit, that it is extremely difficult and often impossible to distinguish between hysteria and malingering. Yet when we consider that psychologically, and in reality, the only difference is that the one results from a subconscious "willing," and the other from a conscious "willing," one can readily see how similar they are, and thus explain the difficulty. The symptoms produced by the subconscious are maintained without effort and for a longer period than those brought about by the conscious mind, though this is not always true. In the former the symptoms continue even when not observed, while in the latter they may disappear when there is no fear of detection. But there is frequently a combination of the subconscious and the conscious.

The following cases are given as a part of this essay:

CASE I.—T., white male, age 45 and married, was slightly injured in a street car accident March 24, 1913, and went to his work that day and the next, then came home and went to bed, and when seen two weeks later, examination showed the following symptoms:

Loss of sense of smell and taste, contracted fields of vision in both eyes, with confusion of colors, partial deafness in both ears as shown by watch and tuning fork test, though he seemed to hear conversation fairly well. States that he does not feel prick of pin, either on right or left side, from top of head to sole of feet, including mucous membranes of nose and mouth, except on sole of right foot which gives the sensation as if walking

on cobble stones, and is interpreted as being in left foot. Neither touch nor temperature sense are impaired. The sense of position is lost in all four extremities, and when the fingers or toes are placed in certain positions, the patient with closed eyes invariably designates the positions as the opposite. There is motor weakness of all four extremities and of both sides of the face, though not complete. When asked to protrude tongue, it remains immovable in the floor of the mouth, though he articulates well and swallows well. The sphincters are normal. In performing finger nose test, he either touches forehead or neck. He has a marked course tremor, involving sometimes one arm or leg, at another time the other side, or even the head, which is constant throughout the examination. The tendon reflexes were present normal and equal, the plantars were normal. There are painful pressure points on each side of neck, beneath left breast, and in back between shoulder blades in dorsal region.

This case is suing for $25,000, and the suit is still pending.

Case II.—W. C. E., male, railroad employe, age 39. Injured December 22, 1914, by falling from a box car, receiving contusions of head, back and left arm, and a fracture of one of the metacarpal bones of the left hand. This patient was not seen by the author until six months after accident, June 25, 1915, when his case came up for trial. He made the statement that he was unconscious for one hour after the fall, but remembered being picked up and placed in a box car, but has been unable to walk since; that his left leg and left arm have been completely paralyzed during this period, and a few weeks later he lost entire use of right leg and in part of right arm. Three months after accident his speech became difficult, and for several weeks could not talk at all, but for a month past has been able to talk a little. Says he has pain in left side and back of head, entire right leg and along back, being worse in lower part, and that he has no sensation in entire left side except slight in face, and none in right leg as far as hip except at intervals; the sensation comes and goes, except for past month there has been none. He states that there has been incontinence of urine even since the accident, and it always contains blood, but was never catheterized. The bowels are constipated, and usually takes salts every other day, and says he has lost control of bowels ten or twelve times at intervals since the accident. Vomiting occurs at times, more frequent of late, and deafness in left ear worse now than at first, difficulty in swallowing ever since accident, which is also worse recently. He stated that for several weeks past he has had bed-sores. The physical examination made six months after the accident showed a poorly nourished man who talked slowly and apparently with some difficulty at times. His pulse was 122 and temperature 99.6. There is a loss of left index finger from an accident in 1897, and an arched deformity of right foot from a fracture in 1895. There were red spots the size of half to one dollar over left shoulder, both hips, heels, sacrum, and lower dorsal spine; they did not have the appearance of bed-sores, and running through each were parallel scratches, equidistant, and having the appearance as if made with the prongs of a

fork. The pupils react to light and by accommodation, the optic discs and external ocular muscles are normal, but when the right eye is covered he says the objects appear as tripled or quadrupled. Says he cannot smell or taste, and cannot hear tuning fork through air nor bone conduction in left, but right seems normal. There is no atrophy of tongue and when requested to protrude it, says he cannot, but rolls it back in mouth. Swallows without difficulty until attention is called to it. Apparently there is a complete motor paralysis of left leg and arm, right leg, and only power to feebly flex right arm. There is a slight atrophy of disuse of the muscles of the extremities; there is no paralysis of either side of face. Says he cannot feel cotton wool on any part of left side from head to foot, and the area of anæsthesia extends across middle line of body for three to six inches; there is a total analgesia to pin prick over entire body, head and extremities, right and left, except over a small area at crown of head, and right hand from knuckles to tip of fingers. The thermic sense is normal over face and head, but over entire body and all extremities he says hot is cold and cold is hot. The sense of position of fingers and toes are reversed—when held up he says they are down and vice versa. He complains of tenderness along entire spine and in right iliac region. He says when the bladders gets full it begins to dribble and he calls for a bottle to catch it. There was no odor of urine about bed nor penis and the organ remained dry during entire examination which occupied two hours. The tendon reflexes were all present, equal and not exaggerated. The plantars were flexor. This man is suing the St. Louis and South Western Railway Company for $50,000, and the lower courts rendered a verdict in his favor for $20,000. The case was appealed and is still pending in the higher court. The patient at last account, some months ago, was walking around on crutches.

It is difficult to conceive that this man, with his manufactured bed-sores and multiplicity of symptoms, which conform to no law or order, is none other than a malingerer aided and abetted by others.

Case III.—H. L. S., flagman on St. Louis and South Western Railway Company, injured September 12, 1914, having been struck on left hip by a passing car, and then falling to ground on right hip. He claimed that the injury was followed by a partial motor and sensory paralysis of the right leg with retention and incontinence of urine, and that the paralysis gradually extended until the entire right lower extremity from hip became absolutely immobile and anæsthetic to all sensations. Examination made in March, 1915, six months after the accident, showed the following signs and symptoms, the negative ones being in part omitted for the sake of brevity: sense of smell lost in right nostril. No motor paralysis of arms, and the grip of left hand is slightly greater than right (patient being left handed). Feels pin prick more distinctly on left face than right. Sensation normal in left arm. There is a loss of pain and temperature sense

over entire right arm to shoulder girdle, but sensation to touch is normal. The tendon reflexes of both arms are present, slight and equal. Abdominal and cremaster reflexes were present and equal on the two sides. The motor power of left lower extremity was normal, but the entire right lower extremity from hip to toes remained absolutely immobile when he was requested to move it. There was complete loss of sensations to touch, pain, temperature, vibration and position in right lower extremity, extending from toes nearly to umbilicus, and including also the lower segment of left abdomen to Poupart's ligament, and the gluteal region on right, but not on left. There was complete loss of sensation of entire penis and scrotum, to touch, pin pricks and temperature. The knee jerks and ankle jerks were present, brisk and equal. The plantar reflex on left was flexor, and on right no response. There was no rigidity of the extremities and there was no atrophy. The patient stated that for a few days after the injury he had to be catheterized, and that ever since the first week he has had a complete incontinence of urine, but there was no loss of control of the bowels. On removing his clothes for examination, folded cloths, saturated with urine were found. The symptoms which this case presents do not conform to the anatomical distribution governing either a peripheral or the spinal cord type of paralysis. If the paralysis were due to an injury of the peripheral nerves, we should have atrophy, loss of tendon reflexes, no incontinence of urine, and the area of anæsthesia would be of an entirely different distribution. If the paralysis were due to a hemilesion of the spinal cord at about the eleventh dorsal segment, the paralysis would be of the Brown-Sequard type, viz.: a motor paralysis of one lower extremity without loss of sensation in that member, and a loss of pain and temperature sense in the opposite extremity without motor paralysis, and furthermore, there would be no incontinence of urine unless the lesion was a transverse one, in which case the paralysis and sensory disturbance would be entirely different from what was found.

This man's case was settled outside the courts about fourteen months later, after which he left the state and when heard from was entirely well.

Case IV.—J. T. S., male, age 35, was injured October, 1914, by slipping on steps of hotel, and was said to have fallen striking back of head. It was stated that he was unconscious for several days following the accident, but no authentic report as to his condition or the severity of the accident could be obtained. He was first seen and examined by myself four weeks later, and about ten times during the fourteen months following. He was conscious, complained of pain in back of head, along spine and in left hip. He kept the eyes covered, complaining of intense photophobia, and it was with difficulty that an examination of the pupillary reflexes could be made, though it was found that they were normal. There was constant smacking of the lips. The cramal nerves were normal, and the extremities could be moved freely in all directions, though not much force was manifested, and

one side seemed as strong as the other. He could walk, but did so with body bent forward and hands resting on thighs. There was some spasticity of left arm and lower extremity at times, and contracture of some of the muscles of leg, especially noticeable in the extensor of the great toe so that he seemed to have a constant Babinski. There were areas of anæsthesia distributed irregularly over the upper and lower extremities, both right and left, and these patches of anæsthesia were changeable, and did not conform to any anatomical distribution of the nerves, either radicular or peripheral. The tendon reflexes were present, and slightly increased, but equal on the two sides. The abdominal reflexes were present and equal; the plantar reflex on the right was flexor, and on the left the great toe remained in its extensor position, so that for some time we were in doubt as to whether or not there was a true Babinski. He was very much opposed to going to a hospital for treatment, but finally went in January, 1915, for a week, where he complained of being worse and finally had a general convulsion in which I saw him. This was a general tonic convulsion with intervals of partial relaxation, and in which opisthotonos predominated throughout. The seizure lasted two or three hours, during which time he seemed unconscious, but did not bite the tongue nor lose control of his sphincters. The following day at his earnest request he was removed to his home, where he has been ever since, attended by his wife. My last examination, made in December, 1915, showed the following positive signs: photophobia (eyes kept covered with a towel), smacking of the lips, loss of smell of both nostrils, and loss of taste were present. The tongue would not be moved either to right or left, and there was a decided weakness of left arm and left lower extremity, but no paralysis of face. There were intermittent contractions of fingers of left hand, especially the ring and little fingers, also of great toe of left foot. There were no areas of anæsthesia found at this examination, and the tendon reflexes were present and equal, and both plantars were flexor. We have not seen the case since December, 1915, but hear that his condition is about the same, except that he says he has been almost blind and unable to read since our last examination of the eyes with the flash light. It should be mentioned that a few days before the accident he took life insurance for nearly $100,000, the premium of which would not have to be paid in case of total disability. He carried accident policies, whose total indemnity was $175 per week, without time limit, as long as total disability continued. About two weeks ago the accident companies compromised his claim by paying him $12,000. There is a damage suit against the hotel company now pending.

Case V.—G. W. McP., male, age 41, married, whose wife had become infatuated with another man and left her husband several weeks before, was first seen October 15, 1913. The following facts were obtained: He was found in a distant city, six weeks before, wandering on the streets, unable to give an account of his past, nor did he know his name, there being a complete dissociation of personality. He had never used alcoholics. He was kept in the hospital for a week or two, and then sent to Memphis,

his identity having been discovered from letters found on him. In my examination he talked freely and said he remembered nothing previous to September 4, 1913, did not remember ever having been married, nor his name, seeming to emphasize especially the fact as to loss of all memory concerning his wife. He would visit the place where he formerly worked, but failed to recognize his old associates and intimate friends. It was reported that at his boarding house, on one occasion at the table he talked "baby talk," called for a bib, and asked to be fed with a spoon—a condition of *ecmnesia*, which is defined by Pitres as "a partial retrograde amnesia with reversion of the personality to childhood." He was under my observation for about three weeks, during which time there was no change in his mental condition. He had, however, a mitral lesion and developed severe dyspnœa and general anasarca, when I lost sight of him, but understood that he died a few months later, though I could not learn how long his amnesia continued. It is very evident in this case that the purpose of his amnesia and reversion of the personality of childhood, was to forget that he ever had a wife, who had proved unfaithful to him.

Case VI.—Male, white, married, age 30. Had syphilis nine years ago. Two years ago the left leg became suddenly paralyzed, and one year later suddenly lost use of the other leg, so that for past year he has been, when in recumbent position, completely paraplegic, but could walk on knees when assisted to them. During this period was said to have had two or three attacks of unconsciousness with delirium lasting a few days. Examination showed complete motor paralysis from waist down, except slight motion of right toes. Right arm slightly weaker than left. Stocking form of anæsthesia, to touch, pain and temperature complete from knees down; glove form of anæsthesia of right hand. Loss of sense of position of toes and fingers of right hand, and with closed eyes, patient would always say they were in opposite position to that in which they were placed. There was diminution of smell, taste and hearing, and contracted fields of vision. Tendon reflexes were brisk and equal on the two sides, and there was no Babinski. The sphincters were normal. When either leg was passively moved a marked tremor would occur. There was great pain and tenderness in right iliac region, and a point of tenderness beneath right breast. This condition came on four years after a sexual trauma.

Case VII.—Mulatto female, age 19, married. Had a chill followed in two days by left hemiplegia. A few days before this was threatened by husband with a hatchet. Examination made a few days after attack showed complete motor paralysis of left arm and leg: no paralysis of face except patient could not wrinkle the brow on left side. No ptosis, but slight internal strabismus of left eye at times. Pupils react normally. Photophobia of left eye; contracted fields of vision both eyes, left greater than right, no hemianopia. Called a piece of red cloth blue, and could not see red against white. Loss of sense of smell and taste on left, and does not hear tuning fork, either by bone or air conduction, left ear. Patient speaks only in a low whisper, and examination shows paralysis of both adductors

of larynx. Coughs and swallows well, pharyngeal reflex absent. Complete loss of touch, pain, temperature, and position senses of entire left side, including mucous membranes of nose, cheeks, tongue and pharynx, but the sensation is retained from a point three inches above left elbow to shoulder, and from left knee to Poupart's ligament. At times there is rigidity of extensors, at other times of flexors. Pain on pressure over right and left iliac regions, beneath left breast, and on left side of neck. Reverse sense of position. An interesting point in this case was the behavior of the deep reflexes. These reflexes are usually increased on the paralyzed side in organic brain lesions, but are equal on the two sides in hysterical paralyses. We found the wrist, elbow, knee and ankle jerks all present and brisk, but each one greater on left than right. On one examination a well-marked clonus was obtained by percussing the tendo Achilles. A few days later the tendon reflexes became equal on the two sides, except the left knee jerk remained persistently greater than the right. Right and left abdominal reflexes absent. Plantar reflexes were slightly flexor, no Babinski, no Oppenheim, no Chaddock. Patient had pain in left frontoparietal region. Was under observation only ten days, when she left hospital, able to walk with assistance.

Case VIII.—Male, age 35. Uses alcholics to excess. Complains of weakness of left side, and complete left hemianæsthesia. Had measles 18 years ago, following which, both eyes were weak for several years. Thirteen years ago noticed that he was nearly blind in left eye, having only perception of light, which has persisted ever since. For five years past has had four or five attacks, lasting from one to three months, of weakness of left arm and leg, with more or less anæsthesia during the entire time. Examination showed R. V. = 20/15, L. V. = O, only perception to light; eye grounds, right and left normal. Left hemianæsthesia to touch, pain and temperature, more marked to pain and temperature, and more marked in forearm and leg; sense of position of left fingers and toes lost, the patient replying they were up when down and vice versa. Motor weakness of left arm and leg, but patient able to walk with a stick. Motor condition of facial muscles equal on two sides. Tendon reflexes brisk and equal. Plantar reflexes were flexor. The diagnosis of hysteria was confirmed by Dr. Foster Kennedy of New York. This case is remarkable from the fact that he has had a hysterical blindness of left eye for 13 years, during eight of which the blindness was the only symptom. That this patient's blindness was hysterical, and that he could see but didn't know it, was verified by an examination made by an eye specialist in New York. He has since obtained a divorce and is now married again, since which there has been no return of the symptoms.

Case IX.—White female, age 18, single. Attack of infantile paralysis when four, resulting in partial paralysis of left leg, which is permanent. She had been spoiled and petted all her life. For about a year before admission to hospital had an abdominal pain and tenderness more pronounced in right iliac region, present during the greater part of this period

with frequent and severe exacerbations, relieved only for a short time by hypodermics of morphine and hyoscine, to return with greater severity. The appendix was finally removed but only with temporary relief. Then the gall bladder was drained, but with an early return of the pain. When first seen after admission to hospital she complained intensely of abdominal pains, crying and begging for relief. Examination revealed tender points in left side of neck, under left breast, and in right and left iliac region. Almost complete anæsthesia with a few irregular areas not involved. Loss of sense of position of toes and fingers, and with closed eyes, patient says they are in opposite position to that in which they are placed (reversed sense of position). Loss of smell and taste. Reflexes brisk and equal, except those of left knee and ankle are absent, on account of the old anterior poliomyelitis. A day or two after admission passed into a condition of apparent deep sleep from which she could not be aroused by shaking or pricking with pins, but was given no further attention and awoke two or three hours later. She was not given any morphine or other analgesic, her family not allowed to see her, and the acute pain subsided shortly with a few brief exacerbations, but she continued to complain of some abdominal pain for two months, and the anæsthesia persisted for about the same length of time, finally subsiding. She is now well and happily married.

DISCUSSION.

Dr. F. W. Langdon.—I think that while all of us find ourselves in harmony with the speaker with respect to the question of the dissociation theory; that is, we associate in our own minds, with the hysteria, some mental picture of the dissociation process. It is a question however whether we should not associate in that picture an abnormal fixity to account for some cases. We can picture to ourselves mechanisms, whether simply dissociation or an abnormal fixity of association; in fact, we have to make our own picture to account for the symptoms. One statement which I do not think the essayist was justified in putting quite so strongly, was this: that there is *no essential difference* between physical and psychic traumatic hysteria. Perhaps there is *not in the mechanism*, but from a practical standpoint nearly every neurologist who has had an opportunity of comparing the two, has come to the conclusion that the severe traumatic hysteria is an exceedingly intractable form of disease. And that is not only when there is a compensation element. I have seen a traumatic hysteria lasting more than 20 years from the insertion of a hypodermic needle into the arm. In this case there was no suspicion of compensatory damages or any claim against the doctor. It is the experience of all clinicians that hysterias due to railway accidents and fright and suffering from mild injuries, are very intractable forms, regardless of all other questions.

So that while we might say there is no *essential difference* in theory of mechanism, there is a very *practical difference* in the prognosis, that we must not lose sight of. We may say we cannot antagonize that suggestion of trauma by one equally traumatic; that is true; we cannot do that; but whatever the reason, we must not lose sight of *the fact* that we cannot give

so favorable a prognosis to the traumatic hysterias as we may to those of simple psychic suggestion.

Dr. Tom Williams.—Into this exceedingly lucid discussion of psychopathology—the most lucid I have heard—there have been put up again some Aunt Sallys to knock down, which I for one am going to try to keep on knocking down.

And the first one is that trophic disturbance can be produced by suggestion. It has been shown by Babinski that the cases of this kind reported are just no better attested than are the cases of ghosts and telepathic communications; and only those who believe in ghosts will believe in the evidence of the trophic changes produced by suggestion. This is very different from the intentional production of injuries by patients who intend to deceive, which is so often the case. That is Aunt Sally No. 1.

The second is with reference to the concept of the subconscious. More profound reflection upon the data suggesting the subconscious explanation will show that while ideas may appear unconscious, it is often merely because of the patient's ignoring them. For instance, let me give a simple example—in my own case—not pathological, however. In preparing for an examination in chemistry eight or nine years ago. I found I had no time to prepare for the examination; I had not thought of chemical facts for 17 years, and I am quite sure that if any one had asked me some time before the examination one single question on this branch, I could not have given a proper answer. Yet by reason of intense thought and application for two hours, I was able in that space of time to meet the situation properly. You have no right to call that a subconscious operation. It was a case of submerged memory, and I was able to bring up from the back of my mind the necessary material. Is it not the case that by such manner of interpretation we can explain all the phenomena of the so-called subconscious? Is not that a better explanation than that down below you have a wild beast like the Old Man of the Sea—if you will excuse the mixed metaphor—ready to pounce out whenever the guard is relaxed?

Babinski says, and Dr. Somerville agrees with him, that you can't distinguish between intentional deception and an unnatural, unintentional simulation. That is true; and they are both infantile reactions. A child *believes* that it has deceived itself when lying about some anti-social act; but if he is properly questioned, you will find that he has deliberately tried to evade what he should do. It is really an intentional act of dissimulation; but if the habit continues, you will find what represents the mechanism of self-accusation.

These mechanisms, which some psychopathologists believe to be subconscious, are only morbid in so far as they are non-social types of behavior, which have developed in consequence of faulty education.

Dr. Wm. A. White.—Knocking down "Aunt Sallys" is a business which interests me also. The doctor in his very excellent presentation uses the word "subconscious," but Dr. Williams doesn't like it. I think it is too bad we don't have some better conception of the psyche as having a history, just as the body has a history. The idea that a psychic event which is submerged

is all right for some things and we can use that language; but for other psychological occurrences we must take cognizance of that fact. We have developed from primordial plasmodial globules, in the words of Pooh Bah, and our so-called physical bodies have a philogenetic history, and from that point of view, the psyche has its history. It is a history just as extensive as that of the body. When we get out of that field which is capable of being thrust into the unknown by the psyche, when we get out of the field available by the patient, then we are in a field which belongs to the race. With reference to this whole subject of hysteria, the presumption is that very largely the symptoms of hysteria belong to these superficial levels. We all know that ordinarily we can fathom the meaning of an hysterical condition in an adult; whereas when we are dealing with other conditions, such as compulsion neurosis, we must spend months of time on these cases instead of hours.

Dr. Williams.—With reference to the first remark of Dr. White as to the theory of dealing with ideas, with apperceptions, concepts, all sorts of ideas, changes in memory, as philogenetic phenomena, of course the history of that capacity is philogenetic; it can't be pragmatically dealt with through the mammalian ancestry as Dr. White advises. In the last analysis, we must determine what each idea means; we can only deal with the psyche as we have it in adjudicating the matter of whether or not ideas belong to a lower level, an unusual level; and what we have shows that ideation is a property of the neopallium, the organ of the highest levels only; and that only when that functionates itself can the ideation continue, no matter whether we give it such fanciful names as subconscious or not. It is an undue stretching of Dr. Hughlings Jackson's theory to apply it to the explanation of psychological fact, for which he never intended it at all.

Dr. Somerville.—In reference to the remarks of Dr. Williams about the trophic disturbance, I would state that what I said in the paper on this point was a quotation from Dr. Fox. I believe that most all of these so-called trophic disturbances are self-inflicted, that is produced by the patient.

Dr. Langdon spoke of the difference between a traumatic and an ordinary hysteria. There is a difference in the severity of the symptoms, but I think the psychology is practically the same. In my paper, all of which I did not read, I have nine cases reported which I hope will appear in the Transactions. Among those reported, was the case of a man who had been blind for 15 years and that was the only symptom. He had complete blindness in his left eye, which was diagnosed as hysterical blindness. That diagnosis was verified by two or three specialists in New York City who made an independent diagnosis of hysteria, all without any suggestion on my part as to his condition. He developed, 15 years afterwards, hysterical hemi-anæsthesia. It was found that this patient was unhappily married and the only explanation of the left eye blindness was that that was the particular eye he always turned toward his wife. He obtained a divorce and was afterwards happily married and while his other symptoms have disappeared, I do not know whether his blindness still persists.

DREAMS AND THEIR INTERPRETATION.*

By ROBERT ARMSTRONG-JONES, M. D., F. R. C. P. Lond., F. R. C. S. Eng.,

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This is the third time that I have been honored by the executive committee of the venerable Abernethian Society, founded 1795, to address its members and visitors. Upon the first occasion we discussed the question of temperaments, on the second the relationship of genius and insanity, and on this I have been requested to bring before you the subject of dreams. John Abernethy (1764-1831), whom this society commemorates was no dreamer, although Sir James Paget described him as naturally indolent, and he never disdained facts which were within the range of physiological and anatomical experience. He possessed in no small degree a vivid and attractive power of exposition as was testified by a great and appreciative audience of St. Bartholomew's men who crowded to hear his lectures at his house in Bartholomew Close.

It may seem out of place, whilst we are face to face with so grim a reality as war, which has affected us at St. Bartholomew's (there are 1400 Bartholomew's men serving) here as much if not more than any other institution or industry, that we should be discussing the realms of the unconscious, but we can claim that such a discussion is a relief to the strain and stress of reality and that the "Bowmen" in the early days of the war laid particular emphasis upon dreams of the "Angels of Mons." Moreover, dreams have been regarded as one of the strongest forces wherewith to unravel the mysteries of the unconscious mind and it is claimed that their interpretation may bring out of the unconscious mind what is perplexing and hidden and may restore the balance in an unstable and wandering mind.

* The mid-sessional Address to the Abernethian Society.

The laboratory of the mind is open to all, and I see before me some who are apt students in the field of mental exploration, those who have recently had special opportunities for probing into this dark territory. I also see others (among whom is the able nursing staff of St. Bartholomew's) who take an academic interest in the subject but, who nevertheless are justified in seeking for explanations in regard to facts which are within the experience of all.

The subject of dreams has interested mankind since the earliest days of primitive culture and long before the dawn of history. Many and varied have been the speculations in regard to them, and the philosophers of antiquity entertained great diversities of opinion as to their cause and meaning. Dreams may be said to have a world of their own, and to have no links of connection with any other facts in human experience. The savage regarded the dream-world as similar to, only more remote than, the one he dwelt in. When he fell asleep his second self left his body for unfamiliar haunts where he met the second self of his dead ancestors. Socrates believed in the divine origin of dreams. Lucretius accounted for them on the principle that ideas or thoughts were material things which could be detached from each other, and be made to strike upon the mind. Porphyry ascribed dreams to the influence of a good demon who warned the dreamer of the evil the bad demon was preparing for him. Baxter, in his work upon the soul, attributed dreams to the agency of good spirits which descend from their proper sphere and condescended to weave midnight visions for poor mortals. As sleep has something awe-inspiring and inexplicable, so dreams viewed from the waking state have no less strange or perplexing a reality.

Dreams have been defined as " conscious processes during sleep," a definition which implies a self-contradiction, for conscious processes deny sleep, and normal sleep is attended with unconsciousness; but this unconsciousness may indeed be slight, yet it is not infrequently profound and even complete. During deep sleep the senses are unaffected by external and even by internal impressions, yet it has been asserted that the mind is never at rest during sleep and that there is always some dreaming. Dreams have also been defined as thoughts, or a series of thoughts experienced in sleep, *i. e.*, a train of ideas presenting themselves to the mind during sleep. To-day the definition of a dream is " the

symbol of an unfulfilled wish," the meaning of the symbol having to be interpreted by an assumed psychoanalytic "code"; and because of its symbolic function a dream is looked upon to-day as having its root firmly fixed in the experience of the waking life, whilst its superstructure lies in the unreality of phantasms. It may help to understand the terms symbol and symbolism if we state that they are only applicable when the dream is interpreted, *i. e.*, the dream then becomes the symbol of the meaning elicited. The terms themselves apply to the dream as recorded or the manifest dream, which is always centralized round certain subjects connected with the waking experience and not, as erroneously believed by some, always and invariably connected with sexual matters.

The history of dreams is a long and ancient record, and authorities, in the past, have offered many explanations as to the process and import of dreaming. The Old Testament describes many dreams, also their interpretation. We have the beautiful dream of Jacob's ladder, and that of Joseph, which he related to his brothers, also the dream of Pharaoh and of Pharaoh's servants, of Solomon's choice of wisdom, through which he obtained in addition riches and honor. The dream of Nebuchadnezzar, which, as frequently happens, he himself had forgotten, was with Daniel's help revealed and subsequently interpreted, often the quickest way then to royal favor, and in acknowledgment of which the "King made Daniel a great man." The influence of dreaming upon the conscience is shown by the dream of Job, when he affirmed that "God speaketh once, twice; yet man perceiveth it not." "In a dream, in a vision of the night when deep sleep fell upon man and sealed his instruction, He withdraws man from his purpose." In the New Testament there is Joseph's dream, both before, and after the birth of the Saviour; the dream of the three wise men, and the dream of Pilate's wife, which were all quoted as messages from the spiritual world. Shakespeare puts into the mouth of Mercutio the cause of dreams—"Which are the idle children of the brain, begot of nothing but a fantasy." Byron, Milton, Robert Louis Stevenson, who stated that the motives for his best romances were inspired by dreams, Coleridge, Moore and John Bunyan have all dwelt upon this attractive subject and Bunyan stated that the whole of the Pilgrim's Progress was revealed to him in

dreams. Certain races, like the North American Indians, are stated to look upon a dream as a sacred event, being the most ordinary way in which the gods make known their will to man. In the journal of a voyage to North America, Charlevoix relates how an Indian dreamed he had his hand cut off, which occurred the next day. The poor still have their dream-books, and they often pay for the "meaning" of their dreams.

It may help to clear our conception of the working of a dream if we briefly state how the mind works normally in the waking state. All of us are brought up to observe certain conventionalities, and to regard with solicitude certain social laws and amenities; in consequence of which, feelings of undue assuredness, aggression and self-assertiveness are kept under or repressed; and out of regard for social customs certain tendencies or passions are also kept under control, a feeling of self-restraint and inhibition being thus exercised. All of us, who are properly brought up, look upon ourselves with a certain compulsion in regard to observing the courtesies, ceremonies and conventions of life, and our conduct is formulated accordingly. These compulsions eventually become automatic restraints, and they tend to keep up the structure and wholesomeness of human society. They constitute the feelings of social obligation and of personal regard for others, and are based upon certain instincts which have emotional representations, such as fear, anger, joy, sorrow, love, hate and disgust. When, let us say, an object is presented to one of the senses, for instance, to the sense of sight, all the unconscious feelings of restraint which have been instilled into us in youth and which in grown up people act automatically, are applied to the object we have in view and our conduct or reaction towards it varies accordingly; for our unconscious life is always acting in numberless and unsuspected ways upon our conscious mental life. Supposing, for example, that we were watching a lady at some social function who was wearing a green carnation—certain rays of light from this object impinge upon the retina, these are conveyed to the brain and there stimulate a mental picture, *i. e.*, the outward form, figure, surrounding circumstances, time and place of the person are appreciated as an external object, which, when absent, may be restored as an image, a picture, or idea upon the cerebral cortex, so that, in the absence of the object,

an impression of the lady can be revived in memory upon the mind, the person being "remembered" with all her attendant associations. The mind recalls the occasion either with pleasure, or perhaps with pain, and, in idea the whole previous scene can be re-enacted, even to the recognition of personal charms, gestures, verbal movements, conversation habits and ways; these are accompanied by their emotional reactions; all can be revived as representative images, so that the mind is not only able to cognise the object associated with a definite feeling, and with all the voluntary movements, but the image, or memory picture, may also be revived with all the accompaniments belonging to the original presentation. These three factors, viz., cognition, feeling and will, are the invariable accompaniments of every mental process, whether an object is presented from without, or its picture is experienced from within. The same analogy applies to presentations and representations referring to the organic sensations. In dreams these factors tend to become dissociated, the will remains in abeyance, whilst the cognitive elements may be represented alone, or grouped with others which are similar or dissimilar; the feelings may also be represented to the mind and may either be painful or pleasurable. It is the will which refuses to act and it is questionable whether a dream, once initiated, can ever be modified by the will, although some persons state that they are able to modify a dream, and that they have frequently done so. The recollection, of these dissociated elements of a dream when recalled by the memory is often so weird, so striking and so suggestive that an attempt to interpret their meaning is inevitable and the phenomena of dreams have thus become objects of conjecture, of curiosity, as well as of vivid interest. In consequence, many persons have endeavored to read into them some hidden meaning, whilst others regard them with heedless indifference, considering them to be only a confused and jumbled record of sleep-memories unworthy of serious reflection. Possibly the truth in regard to dreams lies between these two extremes of undue scepticism and a too *facile* credence. It is difficult not to suspect a meaning in some dreams, as in the dream of Mrs. H. whose husband went to New York on business. She dreamed one night that he was sleeping on the tenth floor of a hotel which took fire, and that he escaped with difficulty. The next morning, feeling very uneasy she cabled asking how he was,

when he replied "quite well and safe, but had a narrow escape last night when the hotel was burnt down." The following sent to me by Dr. Leonard Guthrie relates the experience of a credible witness, E. W. M., a distinguished scientist and F. R. S. In his own words he writes:

When I lived in Canada the following case occurred:

An Englishman and an American clubbed together to try to reach the Klondike goldfield by the overland trail, *i. e.*, by going due north from the prairies instead of following the usual course of crossing by the Canadian Pacific Railway to Vancouver then taking steamer up the coast to Skagway and crossing back over the mountains *via* White Horse Pass. After the pair had passed on their journey what the American judged to be the outposts of civilization, he shot the Englishman while he lay asleep, tried to destroy his body by burning it, rifled his baggage, taking everything of value and returned. When he was questioned as to what had become of his companion he replied that he (the American) had become discouraged and had given up the expedition but that the Englishman had pushed on. But there was an encampment of Indians close to the spot where the crime had been committed. The old chief saw two men come north and encamp; in the night he heard a shot and saw one man go south. He went to the camp, saw the body and informed the nearest post of N. W. mounted police. They trailed the murderer and arrested him before he could escape across the U. S. border. He was brought to Regina. Meanwhile the brother of the murdered man in England had a dream in which he saw his absent brother lying dead and bloody on the ground. He came down next morning very depressed, told his dream and announced his intention of going straight out to Canada to see if anything had happened to his brother. He arrived out as the trial of the murderer was progressing. He identified several articles in the possession of the murderer as the property of his late brother. The murderer was hanged at Regina.

Another dream of a prophetic nature and relating to the assassination of Perceval is recorded in the Book of Days, I, 617. I am further indebted to Dr. Guthrie for calling my attention to it. It was the dream of Mr. John Williams, of Sarrier House, near Redruth in Cornwall. He died in 1841, and was described in the "Gentleman's Magazine" as a man of the highest integrity. On the night after the assassination, when the facts could not have been known to him by any ordinary means, he dreamt that he was in the lobby of the House of Commons, although he had never been there in his life. He saw a short, small man enter dressed in a blue coat and a white waistcoat. Immediately after him entered another man in a brown coat with yellow buttons. The latter drew out a pistol and shot the former, who instantly fell, blood

pouring from a wound a little below the left breast. In his dream Mr. Williams heard the report of the pistol, saw the blood flow out and stain the waistcoat, and he noticed the color of the victim's face change. He further saw the murderer seized and observed his countenance. When asking in the dream who had been shot, he was told "the Chancellor"—Perceval was Chancellor of the Exchequer at the time—Mr. Williams then awoke and mentioned the matter to his wife who made light of it. At her suggestion he went to sleep again but dreamt the same dream a second time, and then a third. After this between 1 and 2 a. m. he got up and dressed. In the forenoon of the next day he went to Falmouth and related his dream again to Mr. Tucker, of Tremanton Castle, and his wife. Mr. Tucker replied that the description was like the Chancellor of the Exchequer Perceval—although Mr. Williams had never seen Perceval nor had anything to do with him. Just then the news of the assassination reached Truro which was seven miles away. Six weeks after the event Mr. Williams went to London and to the House of Commons. He recognized the lobby, the exact spot where Perceval fell, and the dress of both men in the dream corresponded precisely with those actually worn at the time. The extraordinary thing about this dream was that a minute account of it was published in the Times, another was given to Dr. Abercrombie, whilst Mr. Williams' grandson communicated an account drawn up from his grandfather's words. All these agree in every detail with the first narrative of the dream recorded by Mr. Williams.

Whether we regard dreams as in any way prophetic or not, Andrew Lang has stated it is remarkable, when we consider the enormous number of dreams, that there are not more than occasional coincidences. The successes only are noted whilst the failures as to prophecy have been forgotten. It was, probably, through the effort to elicit some meaning from dream phenomena that the idea of a soul first arose, and that this soul could exist apart from the body and survive its dissolution. The phenomena of dreams, or "visions" as they were called, suggested, as stated, excursions of the soul into some distant regions which it explored, and reported what it had experienced, to the waking soul, so that if the dream were of the dead, the soul was believed to have travelled to the regions of the dead, and, if of the living, then the

soul had wandered into the society of other living souls, and had some message of importance to convey to the dreamer, if only it could be properly and adequately interpreted or explained. Thus they were "symbols" of some message to be imparted by a supernatural being, *i. e.*, if the dream could be properly solved. This "symbolical" view has been revived to-day, although the symbols are erroneously interpreted to be those of sexual disturbances. The interpreter of dream messages, or the "seer," as he was called in ancient times, was, naturally, a sacred person who came to be regarded with considerable importance, if not with prophetic awe and as of divine origin. Thus arose the magician or the "wise man," whose survival was formerly represented by uncultured and irresponsible fortune-tellers, but who are to-day represented by competent and able psychologists, who by methodically arranging and sorting the spontaneously uttered thoughts of a person who submits to examination or by comparing the verbal association of a series of responses, ascertain the workings of the unconscious mind which lies beneath the manifest dream. According to the teachings of certain psychologists all thoughts and actions are assumed to be colored by, if indeed they do not directly arise out of, the unconscious mind.

The careful study of the mental life, normal and morbid, has been the work of modern science, which has elucidated and solved many of the dream combinations—together with other products of the imagination—by the acceptance of that intimate union which exists between mind and body. Upon the close relationship between mind and body, it has been found that the chaotic play of images in dreams is able to throw much light upon normal mental processes and upon the laws which are observable in the working of the mind during the waking state; hence, the appropriateness of studying dreams in this new light and the justification of a claim for those who study dreams to-day, truly to be called "interpreters," for they investigate upon the solid and substantial ground of science, the intimate and fundamental activities of the human mind in health and disease, without the need of resorting to supernatural agencies which had to be invoked in former days.

The interpretation of dreams by the psychoanalytic method is based upon the theory, that in the hidden mentalities or "uncon-

sciousnesses " of our minds are found the explanation, perhaps, the secret, at any rate the quite sufficient interpretation of many abnormal mental occurrences and divergent mental states, such as dreams, lapses of memory, absent-mindedness, obsessions, delusions and all kinds of intrusions and dominations of semi-repressed thoughts.

It is hardly necessary to state that dreaming is not confined or limited to human beings. We are familiar with the appearance of dogs which jump and bark in their sleep, more especially after active excursions, or following upon hunting expeditions; those who keep canaries have doubtless heard their unexpected pipings whilst asleep.

In order to understand the nature of dreams it may be desirable to consider the physiology of sleep, and although the exact cause of sleep is not definitely known, the concomitants of sleep are familiar. We know, for instance, that in sleep all the normal activities of the organism are appreciably lowered, and it is not certain that sleep itself is not a state of debility, for there is a lowering of the pulse rate, and of the blood pressure, there is also a slowing down of respiration. There is, probably in addition, a state of venous engorgement, permitting the products of fatigue to pass by osmosis into the blood stream or into the lymph channels during this engorgement, which is favored by the supine position of the body when at rest, thus giving a better supply of blood to the head and so predisposing the brain to dreaming; yet we do not know the inner state of the organ of mind, *i. e.*, the intimate structure of the cells in the brain cortex during sleep nor their relation and dependence upon the ductless glands, in particular the pituitary, as has been pointed out during hibernation. In regard to the nerve cells, therefore, conjecture must take the place of certainty. The brain cortex, normally, is composed of innumerable cells and fibers, the latter forming the connecting links and threads between the cells; their function being to convey sense-impressions from without the body and then to convey these transformed impressions outwards for the control and proper working of the various organs in the body.

In an average brain, the cells or neurons are computed to number 9000 millions, so a thought, or an idea, or a purpose initiated in one cell, or a group of cells is immediately linked up with

thoughts from scores or hundreds of others by means of these fine connecting fibers. It is believed (Lepine) that the fine fibers—which are called dendrites from their tree-like appearance—undergo a retraction during sleep leading to a partial separation of their terminations, thus leaving a space, so to speak, which cuts off nerve currents and thus induces sleep. This being a theory only, it has naturally evoked another and an opposite explanation of sleep, viz., that sleep accompanies a greater and more extensive prolongation outwards of the fine nerve processes of the cells (Lugaro), which then touch each other more closely and intimately, thus diffusing rather than concentrating nerve energy, the effect of such a diffusion being to lower nerve-potential, and so to bring about a general loss of nerve energy and thus to favor sleep. The whole nervous system presumably participates in this lowering activity of the circulatory and other systems during sleep, yet it is not ascertained whether this lowering is sufficient to interrupt the continuity of the unconscious as well as of the conscious life.

Dreaming, as is well known, can be induced by such agents as opium, alcohol and tobacco, and this would favor the view that dreaming was a morbid process. It is certainly a process which more often occurs just before or just after the actual state of sleep, and for that reason, these dreams are called "hypnagogic." It is general experience that there are more clear as well as more fantastic images just before going to sleep, or just before being thoroughly awakened than occur during complete unconsciousness. It is doubtless also within the experience of everyone that the vivid scenes of the day are more clearly impressed upon the mind during the intermediate state between sleeping and waking, than during sleep. Children often dream before going to sleep of events which occurred the previous day. The Daisy Chain, by Charlotte Yonge, caused dreams of carriage accidents and Peter Pan caused dreams of flying to the Never Never Land in the case of a clever impressionable child.

The materials of which dreams are made are chiefly memories of past experiences, although they are often modified by the influence of temperament and environment. Most dreams are buried in the unconscious mind, which is partly the reason that they can be so rarely remembered fully after waking; this is

certainly the case with children. It is believed that the age of greatest dreaming, as well as that of the most vivid dreams, is between 20 and 25 years. Women sleep more lightly, and dream more than men do, it is certain, at any rate, that more women than men relate their dreams, and women who are accustomed to dream sleep longer. The majority of dreams occur after 6 a. m., although many occur before 4 o'clock. The time during which a dream is enacted is wonderfully short, a few seconds of time in a dream would be equivalent to days in the waking state and many dreams may be recorded in support of this statement. The precipitation of images in a dream is so great and the attention so lacking in precision that there is nothing to regulate them in time. An analysis of dreams points out that the great majority, 60 per cent of them relate to sight, thus the ancients were correct in describing them as " visions," whilst only 5 per cent relate to the sense of hearing. Three per cent have reference to taste, and only 1.5 per cent to smell. In dreams the two senses, taste and smell; which are the oldest, most primitive, fixed and organized of the senses and frequently attach themselves to sight and hearing which nevertheless are easier disturbed because more highly evolutionized, the objects to which taste and smell relate being thus visualized or heard. The faculties of the mind, to borrow an abstraction, " go to sleep " as it were, in certain orders. We know that we feel fatigue so far as our " judgment " is concerned sooner than we do in regard to our sensory life, we hear sounds during a light sleep and are sensitive to rays of light or to the sense of touch, but because the power of forming a judgment is affected early in sleep there are imperfect associations and images, phantasies and dreams arise which are the common experience of all. Some power of association and some power of judgment are left in light sleep, but the lessened power of these two " faculties " in dreams reveals the unrestrained, incongruous and disorderly pictures left on the mind.

It has often been pointed out that insanity and dreams are allied so closely that insanity has been described as a " waking dream," and a dream as a " sleeping insanity." The insane, like dreamers, are under the domination and control of illusions and hallucinations, but they adhere to their dreams or delusions, and no appeal to the senses, to reason or to the judgment, can reconstruct their

mind; whilst dreamers, so long as they remain in the dream state, continue to experience their insanity, a reference to a fixed objective standard being impossible during sleep, so that the mind, for the time being, remains unsound. Here, however, the similitude ends, for, upon an appeal to the senses and to reason the dreamer awakes, whereas the insane person continues in his unreason. It has been stated that dreams may be followed by insanity, and my experience confirms this, although it is doubtful if a dream can ever be the actual cause of insanity, both being probably the product of an already existing mental weakness. A lady under my care, C. W., dreamt she had, during the night, cut her husband's throat and thrown his body out of the window. She grieved, worried, and became so distressed at her imagined murderous conduct towards her innocent partner that her mind became deranged and she lapsed temporarily into acute insanity. A man, C. V., used to dream that he had destroyed St. Bartholomew's Church, and was so alarmed at the notion he could be guilty of such sacrilege that he feared going to sleep, and he also became insane. Another man, H. K., after the last air raid, dreamt that his room was being "bombed"; in his dream he saw the explosion, smelt the asphyxiating gas, heard the crackling of the fire, and from that moment his mind seemed to give way, but, it is quite open to argument whether in each case the dream was not the first symptom of the mental breakdown caused by fear. It may not always be easy to separate hallucinations from dreams, but it is a fact that insane persons dream more often than do the sane, and the continued presence of hallucinations in them together with the natural wish to explain hallucinations by some plausible but erroneous factor causes the insane mind to be one which is readily responsive to slight stimuli. It certainly explains why the insane are light sleepers and are more frequently disturbed by imagined causes than the sane. The rays of the moon penetrating between the folds of a curtain or along the margins of a window blind not only disturb sleep by the light they shed, but the rays may also suggest the figures of persons sent to watch them, or to endanger their lives, hence the wakefulness and dreams of the insane, and the general belief is true that these frequently experience exacerbations of their illness during a full moon. It is a fact, known to physicians that many of our wounded soldiers home from the

trenches suffer from dreams of a fearful and horrifying kind, due to the memory of constant explosions and of the awful effects of exploding shells upon human life. These dreams are accompanied with all the physical symptoms of fear; there is present a lowering of the surface temperature, there is also the blanched face, the anxious expression and the perspiring skin.

Dreams are closely related to the condition described as somnambulism, which is one of intense abstraction and nearer to wakefulness than is the dream state. The sleep-walker is guided by the motive which actuated his waking moments, and he sometimes executes performances with a degree of perfection which is not even possible to one in perfect possession of his senses. I have known a nurse get up in the middle of the night, collect all the patients' day attire and arrange the clothing for about 40 patients at the foot of each bed, after which she proceeded to collect all plants and flowers from an adjoining bath-room and place them in the ward, as in the day time. She then retired to rest, but, upon awakening she had forgotten all the details of the sleep-walking incident.

The state described as "abstraction" or "reverie" is also related to the dream state. In this the attention is so fixed and concentrated upon a train of ideas that, although the eyes are open and sounds are heard yet no impression is made upon them by external objects. In the condition described as "ecstasy" figures and landscapes may be seen as real; the former are most often seen by religious devotees and sojourners in the cloister. Blake, the artist, was able to concentrate his attention upon his dreams so as to remove all distraction. He could paint pictures without sitters, who were so real to his imagination that he could carry on conversations with them whilst painting their portraits. Among persons whom he thus painted were King Edward I and Queen Catherine of Arragon.

Another state of mental abstraction is the pleasant and extravagant kind called "Castle-building in Spain"; a condition in which imaginary scenes of an agreeable form are constructed and indulged in for the enjoyment or satisfaction anticipated. "Day-dreaming" is another state which is an entertainment that has probably been practiced on occasion by each of my audience. "Trance," "lethargy," and "catalepsy"—when the mind is con-

centrated upon an absorbing but narrow range of ideas—are also related to dreams, and so is the "hypnotic" and other states of partial consciousness, but they cannot be entered into here.

We have referred to the "unconscious mind"; the phrase is so frequently met with that it is used in various senses. Carpenter used it in reference to certain psychical states which he described as "unconscious cerebration," during which acts were performed without the knowledge of the cognitive self; one forgets, for instance, a line of poetry, but remembers it later when one has ceased, consciously, to think of it. In the course of conversation one may forget a word, and having "waited and seen" the word recurs later without effort, perhaps, when the attention is engaged elsewhere. This tends to show that there are unconscious mental excitations going on of whose nature we are ignorant, but the thoughts are there in the unconscious mind all the same, and they seem to be interposed between conscious ideas and to be dug up as it were with them. Possibly every conscious idea arises out of and dies away into an unconscious mental state, and according to some there are three degrees or kinds of thoughts; firstly, thoughts of which we are conscious, and which, when given attention to, are raised into what is called the "focus" of consciousness; secondly, thoughts which are in the rest of the field of consciousness, which are present, but only in a state of inattention, for instance, in the theater we are intent upon the evolution or dramatic situation but are inattentive to the audience or oblivious to the staging. The third depth whence thoughts emerge is the unconscious area which could not attract attention until their position had been raised into the full and clear focus of attention by some association or suggestion.

It is preferable I think to limit the term "subconsciousness" to the second of these states in which there is still present a certain limited sensitiveness left to ordinary sense-impression, whilst the "unconscious" state represents the third, *i. e.*, the primitive mind, so to speak, out of which conscious thoughts and intellectual processes rise and grow. The motive force of our acts is believed by some to take its origin in the unconscious mind, whilst the directive and controlling force is in the upper conscious levels which thus regulate the lower.

The technical analysis of dreams assumes that there is a dynamic trend of "desire" in the unconscious mind which is ever seeking for the gratification of personal feelings, passions and sentiments as against the controlled thoughts of the conscious mind. Psychologists who urge this trend or tendency in the unconscious mind assert that it is kept back and restrained by some imagined power called the "endopsychic censor," a purely fictitious and artificial ego which is continually struggling to repress the natural impulses and thoughts not acceptable to consciousness, this "censor" exercising a guardianship over sleep, even the deepest sleep. These psychologists describe the unconscious mind as an underworld of painful memories and wishes always seeking to obtrude themselves, and always in health being more or less successfully kept under "like steam in a kettle" by the artificial censor. When the passions emerge in the conflict they become the "latent" cause of dreams, obsessions and longings; if dreams be the result, then the dream as remembered or recorded is the "manifest" dream, and the interpreter immediately attempts to elicit the latent wish of which the manifest dream is the symbol. By this analysis a clue is furnished to the real aim and personality of the dreamer.

Dreams are thus the resultant of a conflict between the censor and the repressed idea, the dream being the "compromise," and only to be solved by a code, for which an array of symbolism has been invented to serve as a key for its interpretation. If the dream be of the sea, for instance, then according to the followers of Freud who have initiated this sex meaning, it stands as a symbol for "life," as in their own words "life needs the mightiest symbol, because existence depends upon the mighty and profound procreative force." If the dream be of an old house then it is interpreted to be "the abode of life," and to use the Freudian expression of the dream analysts "we find it necessary to predicate a creative, myth-making tendency in the structure of the mind by means of which the currents of life beneath all thought become articulate."

This sexual theory is over-emphasized, and the Freudians who urge sex as the basic origin of all dreams, of all obsessions and of all longings, impulses and neuroses are "sex-intoxicated," for in life's reality there are other primary and original instincts as well as sex, of which fear, anger and hunger are the most common

examples. All these run deep in the unconscious mind and each has suffered far more repression than sex. It is against human experience that all dreams are desires, and it is repulsive that all dreams should be interpreted as relating to sex, and such an explanation has brought these conclusions of what have been called " chimney-sweeping investigations " into deserved disrepute. In the analysis of dreams, the method adopted for exploring the unconscious mind depends upon inferences drawn from what has been described as free or spontaneous association, " word association " and reaction time. The latter has been much used in America as an auxiliary for the detection of crime by means of an instrument of extremely delicate mechanism, the examination revealing a shortened reaction period to word association if the accused be innocent, whilst the reaction period is longer if the accused be guilty, for he is endeavoring to keep back thoughts suggested to the mind in connection with the words presented.

What is the association of dreams with crime? I have questioned insane criminals about their dreams in connection with specific crimes and although there is always some reserve about admitting revelations in connection with criminal acts, I find that they dream much as do other people. In this class there is a considerable difficulty in probing their hidden personal secrets, and in overcoming the resistance of the so-called " censor." In these cases the conscious and the unconscious cannot be easily brought together, and a clue as to their desires, impulses or wishes, is extremely difficult to ascertain. Moreover, this class is not an easy one to investigate; many of the criminal classes being mentally defective, although some are only morally so, especially as regards prudential considerations for they cannot postpone present pleasure for future good. They are easily tempted and easily yield and they have a diminished emotional as well as intellectual endowment. The " criminal type " is impulsive, and though they may not be insane they have often a psychopathic inheritance and tendencies. Their psychoanthropological characters may be summarized as egotistic and anti-social and they are not easy material for the psychological analyst. The discovery of crime through a dream, when the dreamer has by his own dream given himself away, is unknown to me in real life, and this is supported by the extensive experience of Dr. W. C. Sullivan. Dr. Leonard Guthrie

reminds me of the story of the murder of Maria Martin by Corder in 1827, when dreams led to the discovery of the victim's body. As he also points out, there are numerous instances of murders having been discovered and avenged by the appearance of the murdered person's ghost. Shakespeare presents two instances in Hamlet and Macbeth. "The Bells," in which Irving represented the Jew Polonais, exemplifies a drama in which the murderer is being continually haunted by the dream sound of the sleigh-bells, and in "Tom" Hood's "Dream of Eugene Aram" "the unknown facts of guilty acts are seen in dreams from God." The usher, Eugene Aram, dreamed of the murder he had committed, and which he related long afterwards to the boy—"the horrid thing pursues my soul, it stands before me now"; "that very night two stern-faced men set out from Lynn and Eugene Aram walked between with gyves upon his wrists." The suggestion here made connects the dream with the murderer's arrest. Hack Tuke relates a remarkable instance of a man dreaming that he had performed an act which rendered him liable to legal consequences, and for which he had been arrested. On awaking he was greatly relieved to find it was only a dream, but in the course of two or three days he committed the act in an insane condition of mind. He was arrested and brought before the court for trial, but was released to the care of his friends. There is no record of psychoanalysis assisting in or leading to the detection of crime, not even crimes relating to sex, for which the Freudians claim a peculiar affinity.

It will be admitted that a most puzzling terminology has arisen from the efforts made by medical psychologists to analyze dreams. If the dreamer fails to recognize the new and strange scenes in which the manifest dream is located, this is owing to its "dramatization," and if the characters are unrecognizable there is "distortion." Should the chief characters be given a subordinate position there is a "displacement," but not infrequently there occurs a fusion of the characters which is "condensation." When the ideas in a dream become detached from their usual association and are "converted" into some other psychic sphere, then they are being "sublimated" into some obsession or delusion. Hysteria, for instance, is the "conversion" of a "repressed" idea into some motor and sensory discharge, and if only the idea can be

disclosed to the sufferer and by him disregarded, the result is claimed as a cure obtained by a " cathartic," a word which is meant to signify suggestion, autohypnosis or, as more recently hinted " autognosis."

I have quoted the above to show the complicated vocabulary invented by some psychologists to explain dreams which, as Bergson points out, are only states of " relaxed consciousness." In the waking state we are always adapting ourselves to our needs, but in sleep we have ceased to select and choose. The mind in its relaxed state brings together memory associations which were formerly packed away in the " storehouse of the unconscious mind," the reason fills up the gaps and a confused impression results which is the material of dreams.

As is well known, the brain cortex is restored and refreshed only during sleep, and it is a comfort to know that we dream most about events to which no attention has been paid; were it not so, our sleep would be distracted and preoccupied by events that are of importance and which have been our concern during the day, so that our waking life would be prolonged as a permanent dream into the sleeping life and the necessary rest and nutrition of the brain would be impossible.

It is most welcome that the revival of interest in dreams should have awakened the psychologist, physiologist and the philosopher, but progress must be at the expense of offending many susceptibilities and cherished proprieties. The decencies of sex have, I venture to think, suffered from this investigation, and I think there has been a pandering to the lower instincts in human nature through this revival, but I trust the matter has not been beyond the interests of the Abernethian Society.

THE RECEPTION, EXAMINATION AND CARE OF NEW ADMISSIONS.*

By CHARLES G. WAGNER, M. D.,
Superintendent, Binghamton State Hospital, Binghamton, N. Y.

It may be affirmed without fear of contradiction, that no principle in psychiatry is more firmly established than the fact that early treatment of the insane, based upon a correct analysis of the physical and mental condition, is the key to success, whereas delay in the application of the remedial agents at our command invites organic lesion and permanent mental disorder. The time is past when the medical profession was content to turn aside from the great problem of insanity as a *terra incognita*. The burden of caring for this class of unfortunates is increasing from year to year and it therefore behooves the state as well as the individual physician to meet it and solve it in a way that well lessen the burden in the most practical manner possible. To that end thorough study of the newly developed cases and careful and accurate observation of the early symptoms is necessary.

The great question that confronts the physician at the outset is one that deals with the causation of mental alienation. What were the factors that destroyed the patient's mental equilibrium? Why is he unable to adjust himself to his environment? Is his disease functional or organic, curable or incurable? In practically every hospital for the insane a considerable proportion of the new admissions are found to be suffering from mental disturbance of comparatively acute onset, *i. e.*, the malady has existed but a few weeks or months, or, if not in the early stage of development, is susceptible to treatment. These are usually the manic-depressive and præcox cases that offer prospect of recovery, or at least of great improvement, and they are therefore the ones that should command the best skill of physician and nurse and the remedial resources of the hospital to the fullest possible degree.

* Read at the seventy-second annual meeting of the American Medico-Psychological Association, New Orleans, La., April 4-7, 1916.

The economic significance of this proposition is appreciated when it is remembered that recovery in each case that might otherwise become a chronic dependent upon public bounty, not only saves the commonwealth the heavy burden of many years maintenance, which not infrequently amounts to thousands of dollars, but what is far more important, often restores a productive worker to the community in which he lives and a valued member to a family in dire need of his help. With this general idea in mind it may be considered not untimely to briefly review the procedure we should aim to carry out in our care and treatment of this class of patients.

That every institution for the insane should possess a reception building designed and equipped especially for cases of the acute class is everywhere conceded, and such buildings are now provided in connection with public hospitals for the insane in no less than eighteen states. The reception building should have single rooms for those requiring isolation, located with special reference to the separation of disturbed or noisy patients from those who are convalescing; there should be small dormitories for the suicidal needing constant and close supervision, and there should be general wards or sitting-rooms, comfortably and attractively furnished. Books, music, magazines and games of various sorts; moving pictures and dancing should be available for indoor recreation; base-ball, basket-ball, trolley rides and diversional excursions of various kinds should be provided out of doors for convalescents who are able to indulge in them. An ideal provision for outings during the summer months, if facilities are available, is the camp for convalescents, where boating, bathing and fishing, with other activities of outdoor life are features of the daily routine. A camp of this kind has been maintained in connection with the Binghamton State Hospital for several years past, and that recovery in many instances has been largely due to its influence, we have convincing proof.

A special diet kitchen with its facilities for tempting appetites when little, if any, desire for food exists, is an essential part of the acute hospital. The reception building should possess a complete hydrotherapeutic equipment, for, on no part of his treatment can the physician rely with more confident expectation of good results than on the application of the various phases of hydrotherapy and

massage. Other details of construction and arrangement in the acute hospital might be mentioned, but suffice it to say that the resources of the entire institution should be taxed to the uttermost to provide the best possible care and treatment for the class of patients we have under consideration.

The nursing service should be of the highest grade obtainable, for success in treatment will always depend in large measure on the faithful, intelligent care of the highly qualified nurse who spends long hours with the patient when the physician cannot be present, and the physician himself should not only be well versed in psychiatry, but should also possess unusual tact and patience which he must constantly exercise in all his relations with the insane if he expects to gain their confidence and a correct and thorough insight into the mechanism of the mental state he is called upon to treat. In the assignment of the medical staff to duty, not only should the acute service command the best skill available, but this division of the hospital should be numerically strong. Good work can be done by the physician only when he has ample time to study his cases from every point of view.

Immediately on admission all cases should receive a preliminary mental examination sufficiently searching to determine if suicidal or homicidal ideas are present, or if dangerous tendencies of any kind exist, and an initial physical examination, thorough enough to establish or eliminate the existence of injuries or acute physical ailments of any kind. At this examination special attention should always be given to the head, thorax, abdomen, and bladder; the patient should then be bathed and placed in bed under the immediate supervision of a capable nurse; catharsis is usually indicated. It is desirable to keep all patients in bed for at least a few days in order that close observation may be maintained.

The nurse will make notes from hour to hour or oftener, covering the behavior of the patient and carefully record verbatim expressions and samples of conversation that tend to show the trend of the patient's thought. The physician having the immediate care of the patient should devote a liberal amount of his time to a study of the case as soon as practicable after admission. His method of mental examination will depend in large degree upon the character of the case and will vary widely according to the symptoms exhibited. Coincident with the mental examination

disclosed to the sufferer and by him disregarded, the result is claimed as a cure obtained by a " cathartic," a word which is meant to signify suggestion, autohypnosis or, as more recently hinted " autognosis."

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* Read at the seventy-second annual meeting of the American Medico-Psychological Association, New Orleans, La., April 4-7, 1916.

The economic significance of this proposition is appreciated when it is remembered that recovery in each case that might otherwise become a chronic dependent upon public bounty, not only saves the commonwealth the heavy burden of many years maintenance, which not infrequently amounts to thousands of dollars, but what is far more important, often restores a productive worker to the community in which he lives and a valued member to a family in dire need of his help. With this general idea in mind it may be considered not untimely to briefly review the procedure we should aim to carry out in our care and treatment of this class of patients.

That every institution for the insane should possess a reception building designed and equipped especially for cases of the acute class is everywhere conceded, and such buildings are now provided in connection with public hospitals for the insane in no less than eighteen states. The reception building should have single rooms for those requiring isolation, located with special reference to the separation of disturbed or noisy patients from those who are convalescing; there should be small dormitories for the suicidal needing constant and close supervision, and there should be general wards or sitting-rooms, comfortably and attractively furnished. Books, music, magazines and games of various sorts; moving pictures and dancing should be available for indoor recreation; base-ball, basket-ball, trolley rides and diversional excursions of various kinds should be provided out of doors for convalescents who are able to indulge in them. An ideal provision for outings during the summer months, if facilities are available, is the camp for convalescents, where boating, bathing and fishing, with other activities of outdoor life are features of the daily routine. A camp of this kind has been maintained in connection with the Binghamton State Hospital for several years past, and that recovery in many instances has been largely due to its influence, we have convincing proof.

A special diet kitchen with its facilities for tempting appetites when little, if any, desire for food exists, is an essential part of the acute hospital. The reception building should possess a complete hydrotherapeutic equipment, for, on no part of his treatment can the physician rely with more confident expectation of good results than on the application of the various phases of hydrotherapy and

massage. Other details of construction and arrangement in the acute hospital might be mentioned, but suffice it to say that the resources of the entire institution should be taxed to the uttermost to provide the best possible care and treatment for the class of patients we have under consideration.

The nursing service should be of the highest grade obtainable, for success in treatment will always depend in large measure on the faithful, intelligent care of the highly qualified nurse who spends long hours with the patient when the physician cannot be present, and the physician himself should not only be well versed in psychiatry, but should also possess unusual tact and patience which he must constantly exercise in all his relations with the insane if he expects to gain their confidence and a correct and thorough insight into the mechanism of the mental state he is called upon to treat. In the assignment of the medical staff to duty, not only should the acute service command the best skill available, but this division of the hospital should be numerically strong. Good work can be done by the physician only when he has ample time to study his cases from every point of view.

Immediately on admission all cases should receive a preliminary mental examination sufficiently searching to determine if suicidal or homicidal ideas are present, or if dangerous tendencies of any kind exist, and an initial physical examination, thorough enough to establish or eliminate the existence of injuries or acute physical ailments of any kind. At this examination special attention should always be given to the head, thorax, abdomen, and bladder; the patient should then be bathed and placed in bed under the immediate supervision of a capable nurse; catharsis is usually indicated. It is desirable to keep all patients in bed for at least a few days in order that close observation may be maintained.

The nurse will make notes from hour to hour or oftener, covering the behavior of the patient and carefully record verbatim expressions and samples of conversation that tend to show the trend of the patient's thought. The physician having the immediate care of the patient should devote a liberal amount of his time to a study of the case as soon as practicable after admission. His method of mental examination will depend in large degree upon the character of the case and will vary widely according to the symptoms exhibited. Coincident with the mental examination

there should be the serological examinations of spinal fluid and blood, the chemical and microscopic analysis of the urine, and the usual tests for tubercle bacilli. As soon as the physician has completed his examination of the patient and has prepared a carefully digested history of the case, together with an analysis of the mental symptoms and physical signs, he presents his findings at a meeting of the hospital medical staff and then brings the patient before the staff for a joint examination by its members, at which the diagnosis is confirmed only after practically the entire staff is satisfied of its correctness.

All this is doubtless routine procedure in most of our hospitals, but the importance of thoroughness in every step of the procedure cannot be too strongly emphasized. A correct understanding of the patient's mental mechanisms, as well as of his physical state, is essential to successful treatment, and can only be obtained through the most thorough, painstaking, tactful, and searching examination and study of the case. The mental examination should not end with the presentation of the case at the staff meeting; on the contrary, it should continue practically as long as the patient remains in the hospital, *i. e.*, until recovery takes place, or until observation of the case is terminated in some other manner. The behavior of the patient, the orderliness and rapidity of his stream of thought, his moods, his spoken and written productions, his delusions or hallucinations, if there are any, his orientation, memory and intellectual capacity are all matters of vital importance, and the physician constantly seeks for the explanation—for the etiological factor which underlies not only the mental reaction as a whole, but the various mental mechanisms that make it up; indeed it is the search for the *reason why* underlying abnormal mental phenomena that relieves mental examination from becoming a mere catalogue of dry details and makes it instead a study of absorbing interest. In our experience at the institution of which I am the superintendent, we have found it of great advantage to have with us at our staff meetings the patient's family physician and also the committing physicians, who are often able to supplement the anamnesis obtained from other sources and to aid materially in the determination of the diagnosis.

The treatment of the acutely insane is by far too large a subject for comprehensive discussion within the limits of a brief paper,

but a few of the salient points may be touched upon. On the physical side it may be said that few patients come into the hospital with general nutrition unimpaired; states of exhaustion, infective conditions, the well-known physical effects of alcohol or other drugs, arteriosclerotic symptoms, constipation, etc., are among the most common of the various abnormal physical conditions familiar to every receiving ward. Such conditions demand immediate attention and appropriate treatment. Besides prescriptions and medicines, careful attention must be given to regularity of living, hygienic surroundings and the quiet, methodical conduct of the ward affairs; the dietary should be carefully prescribed by the physician to meet his needs and to tempt the appetite of the patient; the special diet kitchen should supplement the regular food service and special food orders should have the attention of a thoroughly capable and trustworthy trained nurse. Such service in addition to regular meals should usually include some specially prepared liquid food in mid-forenoon and mid-afternoon.

As has been stated, one of the most beneficial active agents at our command in the treatment of the acutely insane is hydrotherapy; there is no other therapeutic procedure whose values are so varied and so far-reaching; it may be sedative or tonic in its effect, and not the least of its benefits lies in the promotion of elimination. Among its multitude of applications may be mentioned the wet pack, the continuous bath, fan douche, Scotch douche, needle spray and fomentations. We find the *cold* wet pack to be of the most value as a sedative in the excitement of the manic-depressive; the continuous bath we have found of more value in senile restlessness, in confused states and in agitated depressions; the needle spray and shower following the hot air bath or hot fomentations to the spine, with the final applicatin of the fan douche, is usually calming and at the same time tonic in its general physical effect. The physical effects alone derived from spray and douche applications are regularly so beneficial that nearly every patient admitted to our reception wards receives treatment of this kind. (Douche at pressure of 20 pounds.)

Daily exercise plays a highly important part in treatment; besides walking, which not infrequently is perfunctory, the patient should be encouraged to participate in special exercises or occupations devised for him by the physician. Such occupations in

great variety are now provided in a more or less systematic way in most of our hospitals for the insane, and their value is everywhere conceded. Classes are organized and many useful as well as ornamental articles are made by patients which not infrequently are of considerable economic value to the institution.

Classes in physical culture under the direction of a skilled and enthusiastic teacher, are exceedingly valuable aids; they should include marching, folk dancing, wand drills and a variety of calisthentics which need not be described in detail. Such activities awaken and hold the interest of the patient when more prosaic occupations fail. They improve memory, rouse and encourage the despondent, absorb the superabundant energy of the turbulent and tend to re-establish co-ordination and attention where these powers have been practically lost; there is also regularly marked physical improvement as a result of these exercises.

Cheerful surroundings unquestionably are valuable aids in the care of the insane, and especially so during the convalescent period. Pictures on the walls, plants and decorations about the wards contribute their influence; chairs should be comfortable; the library should be accessible to those who desire reading matter, and above all the nurses and attendants should at all times maintain a cheerful and friendly attitude toward the patient. An indifferent or unfriendly nurse may do more to nullify the efforts of the physician than can be offset by all other influences combined.

Our interest in a patient should not end with his recovery and departure from the hospital. After his return home or to the occupation from which he expects to earn a livelihood, the helping hand of the physician should be extended to him either through personal oversight of his home and industrial surroundings, or through the medium of the social worker whose constant watchfulness and frequent reports keep him fully advised as to the patient's needs. Indeed, it is often during the period immediately following his departure from the hospital that the recovered patient is in greatest need of the counsel and encouragement which his hospital physician is most competent to give him. In carrying on this scheme of after-care the social worker plays an all important part, but to discuss the field of her wide activities is beyond the scope of this brief paper.

DISCUSSION.

Dr. Eyman.—I do not rise to discuss the paper of Dr. Wagner, nor to take up any of the Association's time at this late hour. But I do wish to say a few words upon a subject which I consider should have some practical attention by this Association.

Some time ago, I came to the conclusion that calisthenics were not carried out in as extensive a manner in state institutions as they should be. A few years ago, a very wealthy and very good friend of our institution donated enough money to construct a building for the mental and manual training of the patients; and so far as I know, this is the only building in the country constructed exclusively for this purpose. In this building we have a large room, 45 x 60 feet, clear of posts, for gymnastic and calisthenic purposes. I realized, however, that it was impossible to get a great number of our patients in this room, therefore, a few weeks ago without consulting anyone, I decided to institute more general calisthenic drills. At 9.30 o'clock each morning, orders are given to clear the main room of each cottage of furniture. Most of the cottages and wards are provided with pianos, victrolas, or other musical instruments. All the patients who are in the cottages at that particular hour are required to engage in an ordinary march. After the march, calisthenic drills are engaged in, so far as is practicable with the particular class of patients. At first, there was considerable objection on the part of many of the patients. Now, however, even those who formerly objected become impatient waiting for the drill hour to arrive. Much good, I think, has already been accomplished.

Dr. Forster.—I would like to say that I am very greatly pleased to have heard these papers this morning. In receiving a patient at the hospital, one thing seems to me quite important, and that is the impression which he gets of the hospital and those connected with it. So much of the favorable impression of the case is often due to the first phase of the patient's reception. I remember after changing from the old to the new method, of patients writing to their friends at their homes and saying, "We are now having a hospital in the true sense." We are putting patients to bed and nursing them so long as their condition requires it. Notes are being taken on them and we are living in the hospital spirit. It is so important that the patient shall see us from that standpoint. I did not want to go away before hearing our incoming president's able paper on this subject.

BIOLOGIC ASPECTS OF DEMENTIA PRÆCOX.*

By F. W. LANGDON, M. D.,
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When the genius of Kraepelin—genius being here, as usual, simply a synonym for a high order of painstaking work—"merged," under one name, a group of psychoses characterized in common, by development in adolescence, emotional apathy, poverty of thought, inadequacy of volition, and progressive or intermittent deterioration, he conferred a lasting benefit on the student of mental disorders and the sociologist.

This "master stroke of a master mind," however, did much more than furnish a convenient formula for diagnosis and prognosis; it suggested at once the possibility of a common cause or causes for the disease process; and presented for solution the problems of its possible biologic significance and pathologic interpretation.

In brief, what does it mean in terms of normal and perverted life?

These deeper problems are not only important—they are of *vital importance*—to the civilized nations of the earth as well as to such as may attain civilization in the future. Their consideration therefore is timely, particularly to us of the United States of America, the "melting pot of the nations," where "preparedness" is the watchword, and may be the price of continued liberty of, and government by, the people.

To illustrate this point of view, we have only to realize that one-fifth of the total discharges from our army in 1912 was for mental disease (not including neurasthenia and hysteria). "The discharge rate for mental disease per 1000 was 2.64; higher than for any other class of disease; tuberculosis, including all its forms, being next with a rate of 1.56 per 1000."[1]

The same writer states that "more than half the mental diseases with which we meet in the United States Army, requiring asylum treatment, are of the one form, dementia præcox."

* Read by title before the seventy-second annual meeting of the American Medico-Psychological Association, New Orleans, April 4-7, 1916.

Now, if our present army, composed of picked material of a "good" physical and mental standard, develops 2.64 per 1000 of cases of mental disease per year, what may we expect of the "1,610,600 men available for military duty," in the state of New York for instance, according to the report of the adjutant general of New York in 1915?[3] Were these organized into a military body, the number "weeded out" in one year on account of mental disease, based on the above figures, would be 4250; more than *four full regiments* "killed" without firing a shot; and of these more than *two whole regiments* would be victims of dementia præcox.

It is evident that these figures, based on a proportion of 50 per cent of dementia præcox in admissions from the army to the Government Hospital for the Insane, are higher than those of the general population, which range from 15 to 25 per cent in different states. But it must be remembered that the *army* is recruited from "picked" material as regards *age* as well as physique and mentality, and consequently consists of men of a "dementia præcox age," in much greater proportion than does the civil population.

There is no reason to believe that the situation in European armies is any better—if as good.

It is not only the material for armies that is involved in the question of dementia præcox, but the general population at a most productive time of life.

It must not be supposed, however, that we of the United States of America are alone in facing this problem. Our friend and fellow-member of this association, Dr. Frederick Peterson[4] of New York, writes me: "Dementia præcox is probably as common in Japan as elsewhere." This opinion is based on his own extensive observations in that country. He also writes me:[4] "I saw cases of dementia præcox among the native Fellaheen in Egypt. . . . . I remember perfectly a typical case in a Sudanese negress."

My friend Dr. S. Lilienstein,[5] of Bad Nauheim, Germany, a psychiatrist of large experience in Germany and the Orient, also informs me that—

> In China and Japan in general there are the same kinds of mental diseases as in our asylums (of Germany). In Japan . . . . I saw, for instance, many cases of hebephrenia or dementia præcox, imitating the voices of animals, and it was explained to me that they fancy themselves to be "bewitched" into beasts, wolves, dogs or hens.

In connection with the foregoing we must remember that the Egyptians represent the remains of one of the oldest civilizations, in a state of regression, while Japan is an example of an also ancient civilization, which has taken on within a half-century a most tremendous evolutionary stride.

The case noted in a Sudanese negress, by Peterson, near the other point of the scale, indicates that dementia præcox is not necessarily a disease of higher civilization, while it may be more common in such.

The biologic significance of the foregoing may be postulated, for our present purpose, as follows:

(1) The efficiency in the "struggle for existence" of races and nations will be adversely affected in proportion to the mentally deficient of all types, contained in their populations. Of these dementia præcox is of the greatest importance because of its numerical proponderance and of its incidence at the most ambitious and productive period of life, when the foundations are being laid for the highest achievements of the race, as well as its perpetuation.

Hence, the chances for supremacy, or inferiority, or even the very existence of a nation or race, may hinge, in the future, upon its proportionate population of subjects of dementia præcox.

Turning from these matters of racial and national biologic bearing to those of individualistic significance—what evidence have we which may throw light on the fundamental nature of dementia præcox?

Three views are current with respect to the underlying processes of the disorder, which is evidently more than a mere psychosis.

First: That it is due to some unknown toxin or toxins of specific character to this disease and producing no other. Such toxin may act directly on the nervous mechanism through the nutrient fluids or indirectly by disturbances of organs of internal secretion. In the latter case by producing a secondary "endocrinopathy."

There is nothing in the nature of the disorder inherently opposed to this "specific disease" hypothesis, which is held by eminent investigators—among them Kraepelin[4] himself. It must be admitted, however, that, until recently, evidence of an accepted pathologic nature has been lacking and clinical observation is not satisfying.

The recent extremely important researches of Southard[7] however, with his findings in 90 per cent of 50 cases, of "evidence of general or focal brain atrophy or aplasia, when examined post-mortem, even *without* the use of the microscope"—throw a strong light on this aspect of the disease. Southard's investigations and conclusions are so remarkable for wealth of detail as well as conciseness of statement that no abstract could do justice to them—and the reader is therefore referred to the original. His conclusion is that dementia præcox must be removed from the class of *functional* psychoses and placed with the *structural* diseases.

Secondly: There is the view of Stoddart, Mott, Adolf Meyer,[8] Hoch[9] and others, that in the dementia præcox patient, we are dealing with an organism inherently defective in make up, or of incomplete evolution which is unable by reason of such incompleteness to effect the proper "adjustments" to the increasingly complex conditions of existence, incident to puberty and adolescence. Some evidences pointing in the direction of this solution of the problem are offered on subsequent pages.

The third view rests on the postulate that the defective adjustments, which are obviously present, are due to psychogenic causes, chiefly or entirely. In other words, the organism may be good or fair inherently, but its "psychic mechanism has been accidentally shunted" on to a wrong track by conditions ("conflicts") too complex for its resistance. (Bleuler.)[10]

C. Macfie Campbell[11] has contributed a comprehensive and illuminating survey of the subject. If it be permissible to "summarize his summary" the writer would do so as follows:

> Many authors . . . . have regarded the symptoms as merely the incoherent expression of the disordered activity of poisoned nerve tissue. . . . . Meyer (Adolf) has formulated a conception of the disorder which expresses the fact that the psychosis is the culmination of a long-continued period of ***unhealthy biological adjustments*** in ***individuals who are constitutionally*** apt to meet their difficulties in an inadequate manner.

The following dictum in the same article (by Campbell) contains, to the present writer's view, the gist of the whole question:

> Alienists should surely be the first to recognize that human biology, if it is to embrace adequately the facts of experience, must be psychological; ***psychology is not a branch of philosophy, but that department of biology which deals with the most complex reactions.*** (Italics by present writer.)

For the sake of brevity and convenience we may designate the three views outlined above as: The "specific disease," the "sub-evolutional" and the "psychogenic" hypotheses. All are worthy of the most detailed and serious consideration, but the title of the present paper must limit its scope mainly to consideration of the two latter views.

To the writer the second and third postulates seem not only compatible with, but essential to, each other. Reduced to a homely simile, the one says in effect: "The wagon breaks because it is *too weakly constructed* for the load"; the other, "The wagon breaks because *the load has become too heavy.*"

It is a fundamental principle of biology, that we may never comprehend an organism except in relation to its antecedents and environment.

Looking at the dementia præcox problem in this light, what evidence may we find pointing to possible structural and physiological recessions or atavisms, as accounting for the mal-adjustments which characterize its presence.

The human hand, in the evolutionary procession of the ages has become much more than the mere organ of locomotion and prehension which are its primary functions in the lower vertebrates. By reason of its "adaptability," under cerebral influence, it has become a highly developed instrument of skill and precision. As such, it has needed, and acquired, modification of structure. Such modifications—of *"recent acquirement"*—biologically speaking, are the first to be lost as a result of failures in adaptation (adjustment in general), in accordance with the accepted law of pathologic degeneration, "last to develop, first to decay." It has gradually added to its primary functions, those of defence and offence, of the hunter, the fisherman, the artisan and the artist; and finally in the higher races, it has developed into an "organ of expression" second only in importance to the facial and ocular musculature.

As such organ of expression it is not only an important adjunct to spoken language in the orator, the actor and the "man in the street," but has even replaced spoken language successfully in the deaf-mute, and more or less efficiently in communication between alien peoples. Its importance in human affairs is recognized in such current expressions as: "The Hand of God"; "the hand, the servant of the brain"; the "minister of reason and wisdom"

(Cresollius). We speak of an unusually useful person as "handy to have around." It is not strange, therefore, that in its numerous variations and deficiencies some should tend to be atavistic in type, or indicative of incompleteness in an evolutionary sense.

Complexity of function implies a correspondingly *complex development in structure* in any organ; and as the hand is readily accessible to observation, it is natural that the attention of astute clinicians should have been attracted to its peculiarities in the subjects of various psychic anomalies.

In civilized life, *the hand-shake* is to be viewed as a motor expression of emotional feeling; and as such, of varied characteristics, from the mere formal "touch" of the finger-tips to the hearty hand-grasp of the warm friend in expressing his pleasure at meeting you after a long absence.

As an organ of *emotional language* it is natural that its motor "expressions" should be listless and defective in dementia præcox subjects; and we find that this is the case.

Kraepelin,[3] in his lectures, repeatedly calls attention to the peculiar mode of response of dementia præcox patients to the ordinary salutation of offering the hand.

To quote from his clinical lectures:

". . . . I may call your attention to the fact that, when you offer him your hand, the patient does not *grasp* it, but only *stretches his own hand out stiffly to meet it*. Here we have the first sign of a disturbance which is often developed in dementia præcox in a most astounding way."

Again, in his 8th Edition,[3] he mentions the "hand-shake" as "cold, clammy, lifeless, heavy, exerting no pressure."

The present writer in demonstrating these peculiarities in his clinics has referred to this "physical sign" as "the Kraepelinean hand-shake." It evidently deserves to rank as a physiological stigma of importance.

To Stoddart,[4] however, is due the great credit for discovery of certain peculiarities of a *structural* character in the hands of dementia præcox subjects, which in a measure, may be correlated with this characteristic hand-shake.

To this type of hand he has applied the designation "Simian"—for obvious reasons. For some of the illustrations of it accompanying this paper the writer is greatly indebted to the kind

FIG. 1.—Chimpanzee: Hand showing *flat* thenar eminence and *pad* of thumb directed forward. (Compare Fig. 4.)
(Photo. by Dr. W. H. B. Stoddart.)

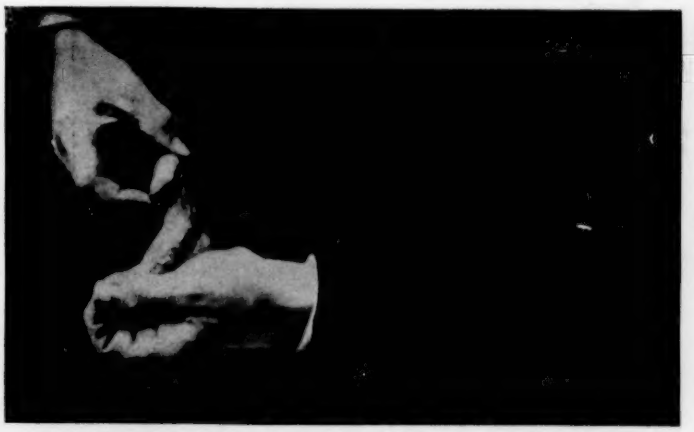

FIG. 2.—Chimpanzee: Hand showing *non-rotation* of terminal phalanx of *thumb*, during flexion.
(Photo. by Dr. W. H. B. Stoddart.)

FIG. 3.—Chimpanzee: Hand showing *non-rotation* of terminal phalanx of *thumb*, during flexion.
(Photo. by Dr. W. H. B. Stoddart.)

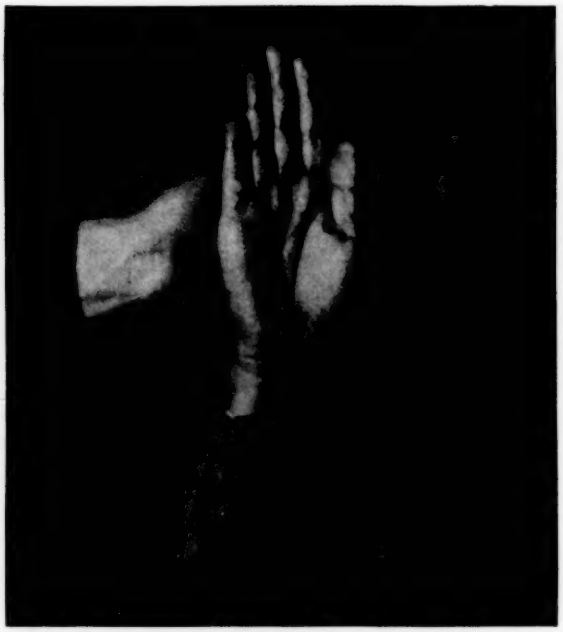

FIG. 4.—Dementia præcox: Showing *flat* thenar eminence; and "*pad*" of thumb directed *forward*.
(Photo. by Dr. E. A. North.)

FIG. 5.—Dementia præcox: Non-rotation of terminal phalanx of thumb.
(Photo. by Dr. W. H. B. Stoddart.)

FIG. 6.—Dementia præcox: Showing hyper-extensible fingers at Metacarpo-phalangeal joints.
(Photo. by Dr. E. A. North.)

courtesy of Dr. Stoddart. They are reproductions of photographs taken by himself. This type of hand may be described as follows:

THE SIMIAN TYPE OF HAND OF STODDART.

(1) With the hand open, the fingers and thumb fully extended and the inter-digital spaces closed—*the palmar surface of the thumb faces forward*—on the same plane, or nearly so, as the palmar surfaces of the fingers. (In the normal hand, the palmar aspect of the thumb faces at a right angle to that of the fingers or nearly so.)

(2) When the thumb is flexed *its terminal phalanx does not rotate inward*—or does so in a less degree than usual. (In the normal hand it does rotate inward thus contributing to greater accuracy and power of apposition of thumb and finger tips.)

(3) The fingers are markedly *hyper-extensible* at the *meta-carpo-phalangeal joint*. In some instances they may be "bent backward" to a right angle with the metacarpus. (This peculiarity is also noted in many grown imbeciles and in young children, as well as in the subjects of dementia præcox.)

Since the increasing complexity of structure and function of the hand in man is determined and dominated by a corresponding complexity of the *cortex cerebri*—it is not difficult to correlate a deficiency in hand-structure and function with lack of cortical evolution.

Stoddart[14] comments on these manual stigmata as follows:

> These characteristics, taken in conjunction with the facts that they are sometimes encountered in cases of idiocy, especially those of the Mongol type, that imbeciles are liable to develop at puberty symptoms resembling those of dementia præcox, and that the above peculiarities of the hands are also to be observed in the chimpanzee, all point to the conclusion that dementia præcox should be regarded as a failure in evolution, as an atavism or reversion to an ancestral type.
>
> Nevertheless we are bound to admit that atavism does not entirely account for all the features of this disease. The rapidity of the deterioration, the physical ill-health and the possibility of recovery, though rare, all indicate that some active morbid process is at work.

It is apparent from the foregoing that Stoddart inclines to view dementia præcox as a specific disease process developing upon a foundation of sub-evolution or atavism.

Numerous other stigmata of degenerative significance are present in dementia præcox, as those of the face, palate, auricle, etc., etc., but these are common to the subjects of various psychoses—and not especially characteristic of dementia præcox. Hence they do not come within the scope of this paper.

A review of the literature and observation of the diagnostic methods of many psychiatrists, has led the present writer to conclude that these "hand stigmata" are overlooked by a great majority of clinicians—or not given due weight as diagnostic and prognostic indicators.

His personal experience has convinced him of their decided value as factors in diagnosis, especially in that "doubtful" class of cases, sometimes labelled "undifferentiated"—with a prefix of "depression," "elation," "hallucinosis," etc., as the case may be.

They are also often of value as guides, in very early stages of dementia præcox; and due consideration of them may make us more guarded in our prognosis in the presence of apparently "mild" "psychic departures."

Some indication of the frequency of occurrence of the "simian type" of hand in dementia præcox may be of interest in this connection. My associate, Dr. Emerson A. North, has kindly investigated for me a total of 44 cases, taken consecutively, without selection, in two institutions in Ohio. His results follow:

Simian stigmata:	Typical (+++)	21
	Partial (++)	14
	Absent	8
	*Doubtful	1
		44

The cases classed as "typical" present the *three* chief "stigmata" well developed; namely: Thumb facing forward; absence of internal rotation of its terminal phalanx; hyper-extensile fingers at metacarpophalangeal joint.

Those classed as "partial" presented only *two* of the "stigmata."

In 35 cases of 44, practically 80 per cent, the stigmata were such as to be of clear diagnostic value.

* Observation not trustworthy by reason of extensive deformity of hands by cicatrices of old burns.

By way of contrast we may note that the "simian hand" is rarely seen in typical manic-depressives. The writer has seen a number of patients with "simian" hands, *diagnosed* as manic-depressives by experienced alienists and has so diagnosed some others himself—on the basis of mental symptoms; but subsequent observation of these patients has shown the original diagnosis to be erroneous, and the course of the disease that of *dementia præcox*.

In addition to the "hand-shake" of Kraepelin, already mentioned, the "snout cramp" of Kahlbaum, noted by Kraepelin, the "shut-in personality" of Hoch, the "special make-up" of Adolf Meyer, and other physiological observations, might come up for consideration as of biologic significance, but they are already so widely known and discussed that a mere reference to them is sufficient.

Recently, however, mention has been made of a "sign" of possible biologic bearing, by Steen,[35] which consists in a characteristic sitting attitude, noted by him as "frequent" in dementia præcox subjects and described as follows:

> The arms are held close to the trunk, with, as a rule, the elbow joint in a condition of stiff extension; the hands pronated and resting on the lower part of the thighs, or even on the knees. . . . . This attitude is possibly an example of reversion, and is seen in the statues of ancient Egypt.

He therefore calls it the "Ancient Egyptian attitude."

Finally, as we go about our daily duties, we all recognize the dementia præcox "make-up" as a practical clinical entity, which fact of itself is suggestive of a basis of biologic significance.

The view, based on results of the Abderhalden dialysis method, that the disease is an "endocrinopathy" depends on evidences of various morbid proteins in the content of the blood serum.

The view of Orton[36] on this subject may be here presented as that of a competent critic—

> Even if we accept the theory and the results of its most hopeful investigators, we are only brought to the beginning of a wide field of investigation; as by the interpretation of the theory, the results speak only for a faulty metabolism in specific organs and as yet give no light on the underlying causes, *i. e.*, the fact that the metabolism of the testicle and brain are disturbed gives no insight into the *cause* of such disturbance.

To the present writer it would seem quite conceivable that the indications of wide-spread defects in various organs and their pre-

mature degeneration—even if established, are also logically attributable to general deficiencies of "make-up" and consequent undue susceptibility to infectious or other disease agencies. In other words, they may argue in favor of a biologic or basic defect.

To sum up:

(1) In the interpretation of the rôle of the biologic factors in this psychosis, so far as the evidence available at present permits, we must recognize the fact that, in the subject of dementia præcox, we have to deal with one of the "by-products" of the "Laboratory of Nature," an organism inadequate to adjust itself to its normal environment, owing to an arrest of evolution and a premature and irregular involution. Such an organism may be likened to a "proper soil." *Not every youth therefore can develop a dementia præcox form* of break-down of the psychic mechanism.

(2) The clinical course of the disease, and the findings of Southard,[7] suggest destructive agencies, which may influence the rate and amount of "deterioration." Here the *"specific disease"* element must be considered as a possibility. Such element may be viewed as playing the rôle of a noxious weed, or destructive parasite, damaging the immature mental "crop" already started.

(3) Psychogenic factors (situations, conflicts, etc.) may quite plausibly be likened to "the seed," determining the character of the subsequent "abnormal crop"—*i. e.*—the "form and content" of the psychosis, its "trends" and other psychic activities.

Conclusions.

The mere presentation of evidence of the nature of a disease is obviously of little practical value in itself. To be fruitful in results it should point the way to *constructive lines of thought.* What useful lesson may we learn from a study of these various *biologic aspects* of dementia præcox?

Since "mind" in its complete expression, includes the end results of *all reactions* of the animal organism to its environment, it is obviously impossible to draw a sharp scientific line of demarkation between psychology and psychiatry. The phenomena of the two sciences may be said to represent merely differing results of "rustling of the leaves" on the higher branches of the "tree of biology." Our distinctions therefore are often arbitrary, based on the *expediency* of social conduct. Hence they may vary in different

races and in the same race at different stages of development. The same truth applies to individuals.

Any practical plan of therapy for dementia præcox should recognize the biologic tripod of *sub-evolution, neuro-toxæmia,* and faulty *psycho-genesis* as the probable basis of the disease. Our efforts therefore should be directed toward improving the "soil," removal of "weeds" and changing the "crop." The obvious indications are, (a) removal of the patient from sources of "psychic-conflicts" and "difficult adjustments" at as early a stage as possible. This means, of course in practically every case, removal from home and home influences; (b) *rest,* physical and mental, *in bed,* during the acute stage, so that the physiological energies may be conserved and resistance to the toxic element may be promoted. (c) Attention to anemia and other morbid blood states. If a leucocytosis could be induced it would probably be desirable in some cases; (d) eliminative measures by hydrotherapy and otherwise are very important. (e) Nutritional and constructive agencies must be pushed to the limit.

As general health and well-being improve under this course, moderate exercise in the open air and suitable occupational and diversional therapy become useful.

The difficulties of productive psycho-analysis and psychotherapy are obviously great, in the fully developed psychosis, but their possibilities in very early stages of the disease may be correspondingly great.

Under the above outlined methods of management, some cases improve so as to be able to resume family and social life to some extent; others rank in statistics as "recovered," though it is probable that they would be more correctly labelled "recovery *with defect.*" It is conceivable, however, that in exceptionally favorable subjects, in an early stage of the illness, under the modes of management just outlined, the neuro-toxic element of the disease may "run its course," leaving a minimum of deterioration; and that the dynamic impulses of a beneficent nature, latent for a time, now relieved of their handicap, may re-assert their powers. Evolution may then go on to a fairly normal completion—*for that individual.* These are the cases that may be said to really "recover." They are rare, but they encourage us to try and to hope.

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WAR AND NEUROSIS.

With Some Observations of the Canadian Expeditionary Force.

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The first contingent of the Canadian expeditionary force began enlisting at the beginning of August, 1914. In the space of six weeks 33,000 men were assembled and about mid-September were on their way overseas. The first battalion to land on French soil, the Princess Patricia's, reached the front in December. Others followed rapidly during the early days of 1915, and after them more battalions, and still more, in a constant stream which is still flowing eastward after 32 months.

The stream flowing westward, that of disabled soldiers, began in May 1915, following the first great engagement, the battle of Ypres in April.[1] This stream, unhappily, has also been a continuous and swelling one, and by March 1, 1917 the number of returned disqualified men reached well above 12,000.

The problem of handling, treating and disposing of this growing army of invalided soldiers has placed a tremendous and increasing tax upon the means and agencies which have been created to deal with it. The first necessity was obviously that of providing housing accommodations where the men could be received and such general treatment as indicated could be supplied. This need was at once met, quite largely as the expression of the patriotism of some of Canada's wealthy citizens who turned over their spacious houses to the military authorities. These together with certain other quarters which became available, were speedily converted into military convalescent homes, each with a commanding officer in charge of administration and discipline, and a medical officer and nursing sisters with their appropriate duties. The more immediate matters of care and treatment were in this way arranged, although to meet the gradually increasing demand

[1] A certain number had been returned from England prior to this date, chiefly men disqualified through stress of winter training.

the original homes have in many instances been superceded by much larger buildings acquired or rented by the government. There are at present about 25 convalescent homes scattered over Canada from coast to coast, in addition to the previously existing general and military hospitals which have always been available for the treatment of cases which could not receive the necessary attention in the homes.

The next step was the provision for special types of disability, and up to the present time separate centers exist for expert treatment of three such special types.

First of all came tuberculosis; and there are now 15 special sanatoria distributed through the various provinces, where tuberculous soldiers are received and treated. A separate hospital is being planned for the care of advanced incurable cases.

Next, a prothetic clinic was established in connection with the Central Military Convalescent Hospital in Toronto. Here an artificial limb factory is operated by the government, and amputation cases for whom appliances are indicated are sent directly to Toronto to be fitted. Additional orthopedic centers are being arranged.

Thirdly came the organization of a special hospital for shock and other mental conditions arising in the army. This institution, the Ontario Military Hospital, is delightfully situated at Cobourg on the north shore of Lake Ontario.

The latest special type of institution which Canada is providing for her returned soldiers is a home for the small number of totally disabled and helpless cripples. For this purpose a magnificent private residence in Toronto has graciously been donated where every possible comfort and pleasure will be vouchsafed these unfortunates.

Provision for Nervous and Mental Cases.

The need of separate provision in Canada for soldiers invalided because of nervous disorders began to make itself felt during the winter 1915-16. The small institution at Cobourg then being used to house a limited number of chronic female patients was taken over, the necessary improvements made, electro- and hydrotherapeutic plants installed, and in July the first patients were received. This hospital is under the able administration of Capt.

F. S. Vrooman, a man trained under Dr. C. K. Clarke, and formerly first assistant at Brockville Hospital. The population (Feb. 1) is about 50, with capacity for twice, if necessary thrice that number.

Canadian soldiers developing psychic symptoms at the front find their way first to one of the base hospitals in England; either the special hospital at Ramsgate for shock cases, or Moore Barracks at Shorncliffe where four wards are set aside for various types and degrees of mental disability.

All cases except those following mild benign courses are returned sooner or later to Canada. The port of debarkation (except in winter) is usually Quebec, and here is located the discharge depot where all returned men are first assembled to be examined by the permanent medical board of the depot.

Thus far the discharge depot has served merely as a passage way. The actual physical and mental condition of each man is determined as nearly as possible in a brief examination, and his destination decided. The depot is not an observation station or hospital. The men are not detained there, but are cleared out in parties on special through trains as soon as they have had their medical board. It must be said that this board does remarkably good work, under very taxing circumstances; and its members show great skill in rapidly defining and estimating the degree of each man's disability as he comes before them. They sit from nine till six, with a short interval for luncheon in the barracks, and also in the evening as occasion demands. This is the program seven days in the week. In the army there are no holidays. An idea of the bulk of the work of the medical board at the discharge depot, consisting of three men, can be formed from the fact that during the month of January 1917, 1442 returned soldiers were boarded and cleared.[3]

When a mental case comes before the discharge board, one of three possible destinations awaits him. If it appears that his condition is a chronic and hopeless one or if the symptoms of his psychosis are particularly aggravated, he is dispatched to the provincial hospital in the military district from which he enlisted.

[3] Occasionally when there has been unusual congestion at the depot, two or even three boards have been in session simultaneously.

Milder cases including the majority of those spoken of collectively as shell shock, in which rest forms the basis of any therapeutic plan, have not hitherto been separated from the general class of convalescents invalided to Canada for continuation of the treatment begun in England. They are sent to the convalescent homes in their respective districts where they are taken on the strength in each case of the casualty unit of that district and are under the authority of the officer commanding the unit. In the homes they may be in- or out-patients according to their condition, and considerable latitude is allowed in the matter of visits to their homes or elsewhere whenever by this means the advantages of rest and comfort can better be guaranteed.

Cases which stand between these two groups are as a rule diverted to Cobourg. Being a small hospital it has no wide possibilities of classification and segregation, and those types of psychosis which are especially disturbing to their surroundings cannot satisfactorily be cared for here, no matter what their outlook. All other mental cases in which special institutional treatment seems indicated, as well as those adjudged by the discharge board to require further observation, are transferred to the Cobourg Military Hospital.

Analysis of O. M. H. Cobourg Population.

During the first six months of its operation about 150 patients were treated at this institution. An analysis of its population as of February 1, 1917 (50 cases) gave the following result:[1]

	Cases.	Per cent.
1. Fairly definite types of Dementia Præcox	17	34
2. Psychopathic Inferiority, Morons, etc	6	12
3. Defectives belonging either to group 1 or group 2	4	8
4. Dementia Paralytica	6	12
5. Shell Shock or Trench Neurosis	6	12
6. Other Neurotic Reactions	3	6
7. Alcohol as dominant factor	2	4
8. Manic Reaction	2	4
9. Depressive Reaction	1	2
10. Epilepsy	1	2
11. Trephine Epileptoid	1	2
12. Paranoid	1	2

[1] In this connection the courtesy and assistance of Captains Vrooman and McKay are very gratefully acknowledged.

Such an analysis as the above can be only approximately correct. Observation has been insufficient for a final diagnosis in certain cases which are nevertheless included in the categories to which they have been provisionally assigned. Moreover a considerable number of cases require a multiple diagnosis. For example, a psychopathic inferior has passed through a shock syndrome. Both conditions should obviously be taken into account. Again, alcoholic and shock symptoms are not infrequently mingled.

It will be understood that the foregoing classification and ratios do not by any means represent an average cross-section of military psychopathology. It has been mentioned that the Cobourg institution was not designed for handling chronic hopeless cases, and although many such have found their way there, a far greater number have been sent direct to the provincial hospitals. On the other hand an extremely small proportion of the more specific war neuroses have been admitted at Cobourg; partly because of the eternal dread, even stronger in Canada than in the States, of an institution which savors in any way of insanity, and partly because hitherto with most of these patients the severest phase of their illness has already passed when they reach Canada, and being thereafter essentially rest cases they have more or less satisfactorily continued their convalescence in the homes. Nevertheless when the Cobourg Hospital or some similar clinic is able to devote itself more nearly exclusively to this particular type of case, it will unquestionably be fulfilling a much larger and more important function than has been possible up to the present time.[4]

Reverting to our analysis we note the high percentage of dementia præcox. This is in keeping with the usual returns in army statistics. Captain King[5] of the United States Army Medical Corps found that more than half the mental diseases met with in the army and requiring hospital treatment belonged to the dementia præcox group. The great majority of this group are the simpler

[4] Just now plans are being formulated which will aid materially in the group treatment of nervous and mental cases among the troops. These include a separate institution for the permanent severe types of insanity, and an agricultural center for the segregation and treatment of epileptics.

[5] "Mental Disease and Defect in United States Troops." Medical Bulletin No. 5. Government Publications, Washington, 1914.

deteriorating forms, not as a rule differing in any essential way from corresponding civilian types to be seen in any provincial or state hospital.

From the viewpoint of native constitution the larger number of the præcox cases are probably of the intellectively defective variety. These have long been somewhat of a stumbling block in psychiatry, and from the brief observation of a case it is not always possible to resolve the differential diagnosis between simple primary mental defect, the so-called psychopathic inferiority, and hebephrenia with predisposition of backwardness. Four cases of this indeterminate character have been included in the third category of the foregoing list.

A single-diagnosis classification, as has been suggested, is quite inadequate to represent the actual conditions present. Many of the cases are psychiatric composites and a complete classification involves numerous repetitions. For example, alcohol figured as a noteworthy factor and modifying influence in more than a third of the patients, although in the table it appears as the dominant factor in but four per cent. In 10 of the men with pronounced alcoholic history the average age of formation of the habit was 18 years. Most of the alcoholics belonged to the defective and dementia præcox groups.

Shell shock is set down in the table as constituting the dominant syndrome in 12 per cent of the cases, while as a matter of fact, symptoms of trench neurosis were or had been present in at least 14 cases (28 per cent). These are the conditions which offer the most interesting questions in current war psychiatry. The term "shell shock" has become almost a nuisance because of its all-inclusiveness in general use. On the other hand it is an extremely vivid and pregnant expression with its striking alliteration, and is worthy of being retained in our nomenclature if its meaning can be restricted and more precisely defined. This may perhaps be accomplished by a process of elimination.

War Neuroses.

The various types of mental disease, organic and functional which are familiar in civilian practice are encountered likewise in the army, in peace or war, and cannot be said to stand in any specific relationship to the military situation. At most the stress of campaign may act as a contributing cause.

Excluding these, there occur among the troops during war certain pathological mental states, also not entirely unfamiliar to civil psychiatry, but which are yet quite definitely reactive to the conditions of army life. Symptomatically they ally themselves with the neuroses.

Taken together this group—the war neuroses—falls epochally into two classes, including respectively conditions developing, (a) in camp, (b) at the front. With the former, which may be called *anticipatory war neuroses,* we are not at present concerned. They comprise various neurasthenic and hypochondriac reactions, nervous digestive disturbances, vague algophilias, occasional post-traumatic neuroses which may develop after minor injuries. These cases show, as a rule, nothing unusual or distinctive, and carry relatively little of the war imprint.

The second class includes the more or less definite nervous reactions to the circumstances of active warfare, and may be spoken of collectively as *trench neuroses.* These appear under a considerable number of forms which, although closely akin to certain prototypes long known to psychopathology, are yet distinctive in that their major causes are certainly unique, and that their clinical pictures bear remarkably strong imprints of those causes.

What conditions, then, are we justified in calling trench neuroses? With the knowledge that in every-day mental life a sharp line is hardly to be drawn between normal and morbid, we are prepared for the opinion that among soldiers in action all grades of nervous reaction are observed, from the milder or at least transitory effects which may well be within the limits of the physiologic, to the enduring pathologic conditions. Among the terrors of the present-day battlefield, so utterly new in human experience, the stoutest heart may fail; and for the time being symptoms may appear which, except perhaps in intensity, elaboration or duration, exhibit all the potential of the severe neurosis. A sergeant of the First Canadian Contingent, an old imperial army man who had already seen 16 years of service including campaigns in India and South Africa, expressed to me his conviction, which was also his own confession, that no soldier in this war had done his bit in the firing trenches without passing through a period of nerves however short it might be. "When a man asserts the

contrary," added the sergeant, "he is either a bit queer to begin with or 'swinging the lead.'" Among the returned men with whom I have talked, this has been the general opinion, and the one or two exceptions have only served to substantiate the sergeant's conclusion.

Still this conclusion may have been too sweeping, and due allowance must be made for what has been called "battle-tonus," a hypernormal state of the nervous system under the excessive stimuli of the field, through which prodigies of endurance and heroism are wrought. The two conditions, nervous anxiety and battle-tonus, are not however, mutually exclusive. Indeed they appear often to exist in sequence, first the *pavor belli* with nervousness and worry, then the dreadnought exultation and fighting lust, which cannot but call to mind the succession of transient cyclothymic phases. Men from the front commonly report that the most usual period of nervousness occurs when they go into the first line trenches and have time to think while awaiting the orders for action. Most nerve-racking of all is the situation of enforced inactivity under shell fire. When the orders come, the actual business of fighting affords relief, and though in greater danger, there is less or no conscious nervousness.

Colonel Thompson relates the experience of an officer who, as the time approached for him to lead his men in the advance, grew so painfully self-conscious as to become almost completely unnerved, not through fear of the enemy or dread of danger as it seemed to him, but through the *fear that he would be afraid* and fail to show before his men the necessary example. In this case a leisurely conversation planned by his commanding officer in his dugout, dealing with things at home, everything else in the world in fact but war, served to restore his self-confidence and when the time came to put it to the test he felt, as he expressed it, that he was ready for anything and nothing could stop him.

Thus it would seem that any individual may pass through a transitory initial neurotic phase, the symptoms of which are largely subjective, and which does not necessarily diminish his efficiency as a soldier.

Much less common fortunately are the severe conditions which may more properly be spoken of as abnormal. In these the symptoms, instead of subsiding after a relatively brief period,

persist in aggravated intensity and express themselves more conspicuously in terms of conduct rendering the soldier incapable. What is it that determines this so-called "fixation of the neurosis" wherein the distinctively pathological character of the process resides, and which differentiates it from the milder reactions before mentioned?

Factors in Trench Neuroses.

Let us approach this question by way of a consideration in order of the following etiological possibilities.

1. Individual psychophysical constitution.
2. Exhaustion and kindred factors.
3. Specific motor-habit formation.
4. The psychogenic moment.
5. Trauma.

Individual predisposition. The *a priori* assumption would be that a demonstrable neurotic or psychopathic tendency, subnormal nervous resistance or stability, psychotic potential, or whatever one chooses to call the individual biological basis, is the indispensible starting point of any outspoken neurosis. This opinion is supported by practically all observers.

In England Major Mott[6] in his Lettsonian lectures on the "Effect of High Explosives on the Central Nervous System," observes that "a large majority of the cases of so-called shell shock admitted with functional neurosis in some form or other occurred in individuals who either had a nervous temperament or were the subjects of an acquired or inherited neuropathy."

In the war session of the German Neurological Association held in Munich, September, 1916, Gaupp[7] gave expression to a similar view. "In the congenital psychophysical make-up of the soldier is to be sought the most important cause of neurotic disorders. The psychiatric analysis of the individual case points to a psychopathic basis in most of the war neuroses, often indeed where the anamnesis as usually recorded reveals nothing."

Essentially the same conclusion was established by Birnbaum[8] in his initial review of the literature on war neuroses and psychoses

[6] Lancet, February 12 and 26, March 11, 1916.

[7] "Neuroses Following Injuries in Warfare." Zeitschrift für die gesamte Neurologie und Psychiatrie, Orig. 34, 1916.

[8] *Ibid.* Ref., Bd. XI, Hft. 5, 1915.

covering the first eight months of the war. Soldiers developing nervous and mental disorders show "in the great majority of cases a predisposition; by which is understood not only a congenital, but also an acquired disposition such as may be observed following the chronic abuse of alcohol, earlier head injuries with concussion, etc."

The Cobourg material utilized in this present report is neither large enough nor representative enough for drawing general conclusions. It may be set down simply as a matter of record that the patients who had suffered from shock symptoms, and of whom records and observation were sufficient for an approximate estimate of personality, exhibited almost without exception, certainly in more than 90 per cent a constitutional predisposition. Most of them belonged to the schizophrenic and defective groups. Several had been alcoholic to excess.

According to Mott the basic conditions upon which symptoms of shock develop are as follows:

"(1) Inborn: (a) a timorous disposition and an anxious temperament, (b) a neuropathic or psychopathic inheritance;

"(2) Acquired: (a) a *locus minoris resistentiae* in the central nervous system in consequence of alcoholism, syphilis, or previous head injury, (b) a lowered neuropotential, the result of a post-febrile neurasthenia, (c) nervous exhaustion the result of mental stress, anxiety, insomnia, and terrifying dreams, (d) bodily exhaustion from fatigue, cold, wet and hunger."

The question has been widely debated whether a man whose nervous and mental organization is hereditarily and individually sound will fall a victim to trench neurosis. Bearing in mind the fact that our knowledge of the transmission of mental characters is so rudimentary as to make impossible any final conclusions as to the significance of heredity in this connection, and the further fact that in any mental inventory the issue of normal or abnormal is often purely an arbitrary one, a question of degree, and that any and every one is blest or cursed with a certain psychotic potential which, under stress may exhibit actual though ephemeral psychotic trends for which we are pleased to make allowance as physiological—it must be admitted that the discussion of the question raised is premature, or at most perhaps of purely academic interest. It is to be observed further that the military

anamnesis is usually, in the very nature of things, a fairly laconic record; nor does it necessarily carry much weight when it can even affirm with reasonable authority that a given patient had always previously enjoyed good health and had not been subject to nervous symptoms. We still get histories of that sort in everyday hospital practice in well-known types of psychosis which we believe to be frankly constitutional. Moreover, in any essentially episodic psychosis or neurosis, there has to be a first time for an outspoken syndrome to develop, and the fact that in a given case no such syndrome had before appeared merely means that that first time is the present one.

Of the three ways in which etiologic factors in general operate, as (1) cumulative, (2) convergent or (3) catastrophic influences, it has long been recognized that under the third form they are particularly likely to strike apparently sound individuals and that a lesser degree of psychotic potential may be requisite for the production of psychosis when the causes are of the catastrophic sort. Such they pre-eminently are in the trenches, but they are often cumulative and convergent as well; so that it is safe to say that of all possible nervous disorders the war neurosis may conceivably appear in certain persons with a minimum of neuropathic predisposition.

We are accordingly prepared for Birnbaum's report that neuroses and psychoses resulting from the stress of warfare, have occurred in individuals "with sound heredity and previously apparently entirely normal." Nonne,[1] who together with Gaupp and Oppenheim led the debate on the war neuroses in the Munich congress already referred to, asserts: that "the war has shown that persons with previously sound (vollwertig) nervous system can acquire a neurasthenic symptom complex," and further, "assuming as the distinguishing characteristic of hysteria that emotional reactions are transformed into somatic symptoms which may long survive the exciting emotion, the war has taught that hysteria is no rarity even in persons hitherto quite healthy (vollwertig)."

So much for individual predisposition. It may be added that the type of personality has of course its own influence in deter-

[1] Neuroses Following Injuries in Warfare. Cit. Ztschr. f. d. ges. Neurol. u. Psychiatrie, Ref., Bd. XIII, Hft. 3, 1916.

mining trends in an eventual psychosis, and that existing psychotic states are usually, although not always, aggravated.

THE FACTOR OF EXHAUSTION.

Regarding the importance of exhaustion in the causation of neuroses at the front there is a wide range of opinion. It is a factor extremely hard to estimate. To be kept in mind in this connection is the distinction between acute exhaustion with its somatic and psychic manifestations—a condition reproducible in the laboratory at will—and the so-called exhaustion psychoses.

That the former syndrome is frequent in trench warfare is common knowledge. Capt. E. Farquhar Buzzard [10] describes cases of this sort. The premonitory danger signals are restlessness, irritability, sleeplessness, depressive tendencies, poor attention. He points out that symptoms such as these soon subside if the patient can promptly be given sufficient rest in bed. Otherwise with continued strain a "neurasthenic" state supervenes which will require a six months leave of absence. In cases with inherited neurotic or psychotic constitution, according to Buzzard, the factor of exhaustion brings out the morbid potential. He classes in this group tics, speech disorders, epilepsy, phobias, and actual psychoses.

As manifestations of exhaustion, Bonhoeffer [11] refers to isolated phenomena such as increased mechanical irritability of muscle, mild neuritic symptoms, optic and acoustic fatigue-hallucinations. He characterises acute nervous exhaustion by an initial period of somnolence with morose depression followed by a condition of nervous irritable weakness with hyperæsthesia and emotional instability.

From numerous other sources we have descriptions of the transitory nervous accompaniments of physical exhaustion. Goldstein discussing Bonhoeffer's paper, just referred to, speaks of an exaggerated sense of fatigue under continuous shell fire, with indifference to whatever may happen, the subject perhaps falling asleep in the midst of duty. Tasks may be gone through mechanically but efficiently. The time sense, the capacity for estimating

[10] "Warfare on the Brain." Lancet, December 30, 1916.

[11] "War Experience on the Etiology of Psychopathic States." Allgem. Zeitschr. f. Psych. Ref. Ztschr. f. d. ges. Neurol. u. Psych., Ref., XIII 3, 1916.

duration is lost, while the space sense may remain intact. The power of recollection is diminished not only for the period under fire but also for days afterward. The subject may even experience difficulty in expressing himself, in finding the right word.

An investigation of "Accumulated Fatigue in Warfare" has been published by Maitland[22] in the second interim report of the British Association Committee for the study of fatigue from the economic standpoint. Maitland found that soldiers collapsing through fatigue, though soon recovering after a period of rest, returned to the trenches with efficiency reduced. Aim was less sure and decision less prompt. Still more serious however seemed to be the ultimate condition of certain fighters who did not collapse in the field but held out under the burden of cumulative fatigue. On returning from the lines they exhibited extreme pallor, low blood pressure, restlessness, nervous irritable weakness. Complete physiological recuperation could not be assured.

The physical sequel of cumulative strain and fatigue is seen in the pitiful plight of Serbian prisoners who had endured six years of almost continuous warfare. They showed extraordinary emaciation, diffuse muscle atrophy, dilatation of the heart, high-grade fibrosis of the arteries, œdema of the lower extremities, extreme weakness, sometimes requiring rest in bed for months, increased mortality and susceptibility to disease, tendency to tuberculosis and chronic phlegmons, and a striking incapacity especially in the older prisoners for recuperation. (Bonhoeffer).

One would naturally look among these unfortunates for the most exquisite examples of the so-called exhaustive psychoses, with which all modern text-books have made us familiar. They were strangely missing. Bonhoeffer reports the incidence of psychoses in surprisingly small numbers among the Serbian prisoners. Here were all the materials out of which the classical exhaustion psychosis was supposed to be evolved, and yet it hadn't materialized. This and similar experiences throughout the war have brought in question the validity of some of the prevailing views regarding this type of mental disorder. It turns out that we have probably been making too free with the diagnosis—exhaustion psychosis, thus furnishing another example of the

[22] Ref., Lancet, December 9, 1916, p. 995.

perennial error of drawing the conclusion of causal relationship, where the thing actually observed is only a coincidental association.

Many of the earlier writers on the psychopathology of the present war, taking as a starting point the universally recognized symptoms of acute physical and mental fatigue, have gone on to the discription of a considerable variety of neurotic and psychotic states, depressive affect, clouding, states of anxiety, delirious excitement, dream disorders, hallucinatory complexes, etc., in all of which the tendency has been to assign a first-rate etiologic importance to the factor of exhaustion. That it has its influence in many cases no one could disprove and no one would perhaps deny. But the note of caution which Birnbaum sounded in his first review of the literature in the spring of 1915, was timely. He pointed out that pictures, similar to the assumed exhaustion states, frequently occur "solely in consequence of psychic shock, as symptoms of frank psychogenic disorders, and that there is much to suggest the purely psychic origin of these disturbances in war. The suspicion is at least strong that in conditions of this sort developing on a basis of exhaustion, a psychogenic factor often exercises a determining influence, and contributes to the symptom picture its special character which would be lacking in cases of *surmenage* uncomplicated by psychogenic causes or shock."

Continued war experience has only served to undermine more and more the position of the so-called exhaustion psychoses in psychiatric nosology. Bonhoeffer[11] was unable to find evidence of their occurrence as the result of the conditions of warfare. Even the pathogenic significance of exhaustion in the development of other types of nervous disorder he considers open to question. He is unable to corroborate, for example, the findings of Weygandt that the incubation period of dementia paralytica is shortened and the course more rapid under the influence of war-strain. On the other hand the effect of this factor on the course of physical diseases is universally recognized. Bonhoeffer sums up the situation thus: "a collective survey of war observations demonstrates the great power of resistance of the healthy brain, and the insignificance of both exhaustion and emotional factors in the development of actual mental diseases."

[11] *Loc. cit.*

Aschaffenburg agrees with Bonhoeffer and goes a step further, dealing perhaps the last blow to the exhaustion psychoses. He denies any etiologic importance in the psychoses to the exhaustion element and declares that he has seen no case, (and his experience dates from the beginning of the war), in which any psychic disturbance worth mentioning had resulted from exhaustion. These statements of Aschaffenburg are the more significant because of the fact that he previously devoted much attention to just the conditions whose right to a name he now disputes. These earlier studies he admits quite overstepped the mark and he is willing in the light of his military experience to consign them to oblivion.

SPECIAL MOTOR HABIT FORMATION.

We pass to the third of the etiological possibilities in the war neuroses, namely certain motor habits of the trenches. These comprise various forms of the self-defense-protection reflex. They are all elaborations of very ancient protective mechanisms which in the sheltered communities of modern civilization have come to be almost negligible factors in the daily life of the people.

Perhaps the commonest of these in universal experience is the dodging-reflex. The psychology of this apparently simple mechanism is interesting in its possible bearing on motor components of shock reactions. In the ordinary occupations of peace the occasions calling forth this reflex are relatively rare and cannot be said to exert much influence upon the mass of our conduct. The subjective accompaniments of this reflex vary enormously in different individuals and in the same individual under varying circumstances. Personal differences are well illustrated by exposure to the dangers of busy city thoroughfares. The town-hardened man sees his chance and shoots through, between vehicles speeding in both directions, unscathed and unruffled. Not so the timorous citizen from without the city walls. He launches forth with doubt in his heart, goes panicky in mid-stream and requires the traffic officer to pilot him safely to the other shore. The immediate after effects of the series of dodging-reflexes he has just executed are those expressive of fear states in general—pallor, rapid heart and breathing, speech inhibition, tremors, alloverish feeling or sense of weakness and shakiness, etc. If our voyager be not markedly neurotic these unpleasant phenomena will doubt-

less be mild and momentary. He speedily collects himself, resumes control of the ship and continues on his course.

From this miniature street neurosis to trench neurosis may seem a far cry, although at the basis of both there are common features. Even more conspicuous perhaps than the difference in symptoms are the differences in the causal factors. Compared with the relatively infrequent and trifling sources of danger and fear in daily civil life the terrors of the trenches are at maximum, omnipresent and uninterrupted. They threaten by night and day, not through the operation of chance but by the desperate resolve of a watchful enemy; and they strike not alone along the surface of the earth but from the skies above and from subterranean depths. The only solace is that in military usage space has but three dimensions. The dodging reflex, previously reserved for special occasions, now becomes a considerable part of the soldier's daily program.

When this reflex takes place there return from the muscles and joints of the moving parts kinæsthetic and allied sensations which accentuate the excitement of the central neurones primarily concerned. This increment of nervous energy not only tends to reinforce and perpetuate the motor innervation actuating the original reflex, but overflows as well into other neurone systems. The total result includes various peripheral, visceral and endocrine changes, each contributing a sensory element to the composite feeling tone which accompanies the reflex and thereby determining further associated motor phenomena which normally should serve the purpose for which it was called forth.

With this bit of physiology in mind, and allowing besides for the ideational factors of consciousness which reflect the actual environment with the accompanying feeling of uncertainty and dread, it is not difficult to conceive how in consequence of the exaggerated type and constant recurrence of the exciting cause as it exists in the trenches, the reflex may take on an abnormal character. Accordingly we find that it may be set off at length by any indifferent and even quite innocuous stimulus especially if unexpected, and be associated with tremors and shaking which may endure in varying intensity for weeks and months.

Men differ considerably in the degree of inhibition they are able to exert upon the dodging or startle reflexes, standing as

they do in an intermediate position between the spinal reflexes which do not demonstrably effect consciousness, and those motor responses which we call voluntary acts. Under the influences of custom and culture the startle-reflex is susceptible of wide modification. Through self-discipline it may be almost eliminated from our every-day conduct. This trained control is a potent means of attaining to that desirable state called *sang froid*. In the neurotic individual however or in the soldier in the trenches this control may be reduced or lost. The resultant motor excesses may conceivably contribute to the nervous phase through which probably most of the men pass in their initial trench experiences, and to which reference has already been made. In the developed trench neurosis there is no question about it. The disordered motor responses make up a large part of the clinical picture and visibly react upon the state of consciousness.

The situation was brought home to me in one of my first experiences with a shock case, in the patient's reaction to a casual stimulus. He was standing by a window as I came up beside him and laid a hand gently on his shoulder, making some indifferent remark. He had obviously been unaware of my approach for he jumped violently to one side with a shriek and an oath which gave me almost as great a shock as I had given him. For an instant he was trembling in acute terror and only gradually the tremulousness subsided. The history of the case is especially interesting and will perhaps be offered in a later report. For the present suffice it to say that at the time of our interview the patient was well on in convalescence 14 months after the casualty in the trenches from which his nervous symptoms dated.

The loss of motor control seen in the tremendously exaggerated forms of the dodging or startle reflex constitutes one of the most striking and constant symptoms of the condition for which we should perhaps reserve the name "shell shock." Any sudden sharp stimulus particularly an aural one not only produces the exaggerated reflex, but may be followed by violent trembling and shaking, even a condition of incoordinated motor excitement requiring considerable time and effort to subdue. One hears rumors now and then of an unhappy inclination among some of the more phlegmatic soldiers to experiment upon their less fortunate comrades who have suffered from phases of shock, the

experiment being to drop a plate on the floor behind them or to break it against the wall. The result is usually all that could be desired.

THE PSYCHOGENIC FACTOR.

Turning now to the rôle of the psychogenic element in the development of trench neurosis, we find it pretty generally agreed that this factor is a very considerable one, although a few authorities, notably Oppenheim, have been inclined to minimize its importance. The war has served materially in illuminating the subject of the neuroses in general and has dislodged some fairly well entrenched beliefs concerning them. For the grasp of our present question it has made possible some rather striking observations.

Firstly, *among prisoners as compared with fighting troops, neuroses are conspicuously rare.* This circumstance has been referred to in connection with the Serbian prisoners. Mörchen [14] found but eight cases of so-called traumatic neurosis among more than 60,000 French prisoners. His observation covered a period of 18 months as physician to the prison camp at Darmstadt to which the majority of the prisoners had been brought direct from the thick of the fight at Verdun. In great numbers these men had suffered the injuries of violent physical and mental commotion, the immediate effects of which ("primary innervation shock") had subsided promptly, after being taken prisoner. In their altered status there was lacking the fixation-motive through which war neuroses are assumed to take form and survive.

Various other observers have also noted the absence or rarity of shock neuroses among prisoners of war. Lilienstein from his experience as head physician to the prison camp at Giessen remarked the infrequency of cardiac neuroses in the camp. He reports that symptoms referable to the heart—precordial anxiety, palpitation, etc. were never complained of "until an object was associated with the complaint, namely the possibility of being mustered out by Swiss physicians for transfer to a health resort in Switzerland." Another interesting finding in this connection was that of Seige, Goldstein and others, that in various localities in France where the civil population had been subjected to fre-

[14] Münich Congress, September, 1916.

quent severe bombardment, perhaps daily for weeks at a time, war neuroses were nevertheless not observed among them.

Wilmanns states that among 80,000 prisoners in the camps of the 14th army corps there occurred but five cases of hysteria, including a single case of hysterical fright neurosis. He further calls attention to the fact that among 20,000 patients proposed for internment in Switzerland the army medical officers of the exchange-commission found scarcely an instance of severe neurosis. The same held true of the Germans interned in Switzerland. Although neurasthenic, vaso-motor, and similar disturbances were common enough, the severer neuroses, of the shock or fright type were not observed.

Secondly, it has been shown that *the absolute frequency of neurotic conditions is greater in the hospitals that are far removed from the front than in the field hospitals themselves.* Not infrequently indeed the neurosis first becomes manifest, or an existing neurosis is aggravated, after the patient has been transported to a hospital in his home district.

Moreover it seems to be a fact that treatment is more satisfactorily carried out and cures more speedily accomplished in hospitals close to the front and where the spirit of army discipline is most felt. It is conceded that the worst possible place to treat a case of war neurosis is in his home town, where in so far especially as the more striking objective symptoms are concerned, the sympathetic wonderment and commiseration of friends create a positive demand which the ideogenic factor of the patient's illness continues faithfully to supply. In hospitals close behind the lines there is still the atmosphere of the front and a mental tone which comes from mass-suggestion of men striving shoulder to shoulder. This mental tone is eminently supportive and therapeutic, but with the transfer of patients to interior hospitals far behind the lines it naturally gives way. The circumstances which produce it are no longer operative and the nervous relaxation and reaction which ensue are often conspicuously and painfully evident. Out of danger, far from the front, perhaps among hero-worshipping friends, the invalid is unavoidably conscious of himself more as an individual and less as a link in the battle line. All the conditions are favorable for the fixation and reinforcement of the neurosis as an ideogenic process. Too often he is found to be

the victim not only of his malady, but of his friends as well, and in more senses than one.

In this there need be no implication of malingering. This word has invariably such an evil connotation that, although applied with considerable variety of meaning, it is impossible to use it inoffensively. In its popular interpretation of conscious fraud it has certainly often been seriously misapplied. Buzzard defines a malingerer as one "who with perfectly clear and well-balanced mind confesses to himself quite frankly that for some definite purpose he will assume a certain disability," and concludes that such persons are extremely rare. Déjerine found no instance of actual malingering among all the nervous cases seen by him during the first six months of the war. The ideogenic moment in the war neuroses which seems so readily to suggest malingering, is probably most correctly conceived in the Kraepelinian sense as the unconscious phylogenetically evolved instinct of self-preservation, which may undoubtedly, in many cases, find some degree of conscious or semi-conscious collaboration in the evoking and fortifying of neurotic syndromes. This may sound like a superfluous quibble over terms, but the psychiatric conception of malingering is so different from the lay meaning, that it seems desirable to emphasize the fact that where this manifestation seems to figure in the history of an invalided soldier, it is itself in the vast majority of cases a symptom of a neurotic or psychopathic state.

Thirdly, the significance of the psychogenic factor is well illustrated by the *difference between officers and men in their reaction to the injuries of trench warfare.* Curschmann[15] found that "naïve gross manifestations of hysteria (mutism, violent tremors and tics, contractures, etc.), were extremely rare in officers even following exposure to severe shell and mine explosions. A circular letter of enquiry addressed to a large number of colleagues with extensive practise among officers verified this finding practically without exception, and it was further supported by the experience of numerous colleagues in the field."

English authorities have made similar observations. Colonel Meyers comments, for example, upon the infrequency of mutism from shell shock among officers as compared with the men and

[15] Münich Congress.

reported that he had seen no such case. Buzzard, up to the time of his report in the Lancet of December 30, 1916 had seen one instance of an officer suffering from shock-mutism. The bald facts in this interesting case Buzzard records as follows:

> I saw him on the afternoon of the day he arrived (at a London hospital) and found him completely dumb, but ready to afford me all information by means of writing. After a short examination, during which I did not display a great deal of interest or surprise in regard to his inability to talk, I gave the nurse in charge, in the presence of the patient, my instructions that no visitors should be allowed until his speech had returned. The patient, who had a young wife and a baby he had not yet seen, was talking quite freely the next day, a cure which he attributed to knocking his head against the rail of his bed in the morning.

A further point bearing on the question at issue is made by Fearnsides,[38] namely that the slowly developing cases of neurosis were likely to occur among the older non-commissioned officers after prolonged stress with insufficient sleep, while the cases with sudden onset were as a rule among the younger men.

Such are some of the considerations which point to the psychogenic or auto-suggestive factor as the chief determinant of the war neuroses. Others will presently be referred to in the discussion of trauma. From this viewpoint, which is doubtless supported by the major weight of authoritative opinion, the war neurosis is the embodiment of the instinctive unconscious or imperfectly conscious protest on the part of the invalid nervous system against service at the front. It is the reactive rebellious assertion of the claims of the individual as opposed to the demands of the state. The fact that the neurotic patient may express willingness, even desire to return to the lines is not held to invalidate the above conclusion. Just as in certain conjugal situations where affection is on the wane we sometimes observe an excessive protestation of devotion, especially in public, which betrays less of genuine inclination and more a perhaps imperfectly realized effort to compensate a perhaps equally vague consciousness of dereliction in assumed obligations; so in the victim of war neurosis there may be a corresponding strife of motives each expressing itself in its own way—on the one side patriotism, duty, the herd-instinct discussed by Trotter; on the other, the phylogenetically earlier and more immanent instinct of self-advantage.

[38] *Vid.* Annus Medicus, Lancet, December 30, 1916.

THE FACTOR OF TRAUMA.

Finally a few words as to the etiologic importance of trauma, a subject which has probably been more hotly discussed than any other in connection with the effect of the war upon the nervous system. A large proportion of the nervous conditions following injury by shell or mine explosion, burial etc., have been spoken of by numerous authors as traumatic neuroses. The original conception of the so-called "traumatic neurosis" was that it depended upon actual organic lesions in the brain, even though these might be only "molecular" in character. Gradually the meaning of the term traumatic, in this connection, has broadened and at present observers are practically unanimous in including both psychic and physical traumata in the etiology of the neurosis. Their disagreement is largely a question of the emphasis to be laid upon each of these factors. It is one of the striking results of the war experience, however, that prevailing opinion has shifted frankly away from the organic and towards the out-and-out functional basis of the disease.

One of the earliest authors to deal extensively with the traumatic neuroses was Oppenheim. He was likewise a convinced exponent of the importance of their structural pathology and of a certain specificity of the condition as distinguished from the psychoneuroses in general. During the decades that have passed Oppenheim has maintained his position against increasing opposition, and in the Munich Congress last autumn he stood almost alone in defending his concept of these conditions.

According to Oppenheim the severe injuries of war are capable of producing neuroses in soldiers previously sound and of good stock. As causal factors he recognizes mechanical and psychical traumata and their combination. But by psychic trauma or shock he implies definite physical changes in the brain, so that for Oppenheim in whichever way the cause operates the trauma is a very real thing. He points out that most of the war neuroses follow injuries and that it is therefore admissible to speak of them as traumatic neuroses. He maintains that "peripheral injury can call forth a neurosis without the intervention of any psychic causal element." In pathogenesis and clinique he holds that there are points of difference which serve to distinguish the

traumatic neuroses from the usual forms of neurasthenia and hysteria although admitting admixtures of these conditions.

The critics of Oppenheim and his school had begun long before the period of this war to bring the so-called traumatic neurosis into disrepute. They questioned the very nature of the disease as indicated by its name. It was brought to mind that according to the usages of our day a severe injury or accident might be looked upon rather as an asset than a misfortune. Why not therefore be honest and call things by their right names? Instead of traumatic neurosis why not speak for example of workmen's-compensation neurosis or damages-from-the-railroad neurosis? Carrying the same line of reasoning over from peace to war times, in place of traumatic neurosis we should have to speak in many instances of discharge-from-service neurosis or pension neurosis.

In viewpoints such as these we see the shifting of the emphasis to the psychogenic element. The injury, even the palpable injury to nervous tissue is not necessarily the cause of any possible nervous manifestations which may follow, in the sense that the destruction of the calcarine cortex causes blindness; but it may serve as the starting-point of certain trains of association which need never be fully in the consciousness of the patient but which nevertheless eventuate in the developed fixed neurosis with all its psychic, neurological and somatic phenomena. Thus the process is less a histopathologic and more a psychopathologic one.

The opponents of the Oppenheim school further call attention to the fact that the majority (though not all) of the trench neuroses develop in psychopathically predisposed individuals, that clinically they show no essential departure from neurasthenic, hysteric and hyponchondriac reactions due to other conditions, that they not infrequently occur without preceding somatic trauma (most of the war neurotics being, in fact, unwounded), that the molecular commotion trauma (Erschütterung) of Oppenheim is not susceptible of demonstration, and finally that the severest traumatic cases, including grave injuries to brain and cord, almost never present the neurotic syndrome. It may be added that such syndromes follow not only injury but also infections and other diseases, and that they sometimes arise in individuals who have never been to the front, indeed who have never left camp, or suffered from tangible injury or illness of any sort.

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Notwithstanding all this, if one were to take the extreme psychogenic viewpoint it would perhaps be going in the right direction too far, if it may be so expressed. The trauma is at all events the starting point of the neurosis in many instances, and in every case symptoms referable to actual lesions in the nervous system should be looked for; although even in the presence of such organic lesions the fact of the subsequent occurrence of a neurotic syndrome of itself by no means justifies the assumption of a causal sequence. There are examples of sudden death under shell fire in which there was no recognizable injury which could account for the fatality. It might therefore be supposed that in traumatic neuroses without demonstrable injury there would still be minute changes of some sort, miliary hæmorrhages perhaps, in the central nervous tissue.

The near-by detonation of high explosives undoubtedly produces some degree of general traumatism of the organism. The immediate effect of this traumatism is the state generally described as "concussion." Here individual constitution would seem to play little or no part. The concussion syndrome is transitory, being measured in hours. Initial unconsciousness is the rule, the reaction being, according to Buzzard, not unlike that to a blow on the head. The unconscious period is likely to merge into a twilight state of consciousness with more or less amnesia as the mind becomes clearer. Upon the concussion phase follows the period of neurosis proper. In this, personal disposition and psychogenic moments exercise a much more conspicuous, possibly even a determining influence. The symptomatology is extremely varied although there are certain fairly constant characteristics, such as nervous irritability, fear reaction, battle-dreams, loss of self-confidence, hyperæsthesia, tremors, weakness and fatiguability, fainting attacks with functional cardiac insufficiency and lowered blood-pressure. The duration of this phase may be months or even years. Such in general are the phases of shell shock.

Mott has summarized as follows the possible effects on the nervous system of high explosives bursting in the immediate vicinity in cases with no recognizable external injury.

1. Commotion from aerial compression—actual physical trauma from the sudden increase in atmospheric density, the victim being

perhaps, hurled through the air. The effect is clearly evident in the frequent lesions of the middle and internal ear.

2. Concussion with or without burial. Here are included mechanical shocks and bruisings from violent contact with solid objects, falling sand bags and débris, etc.

3. Decompression from sudden rarefaction of atmosphere, with embolism by bubbles of nitrogen and carbon monoxide as in caisson disease.

4. Inspiration of carbon monoxide during the aerial compression. On this point Professor Leonard Hill furnished this statement. "The explosion of a big shell in a trench, dug-out, cellar, or other confined space must, I think, instantly deoxygenate the air and produce a high concentration of carbon monoxide and the oxides of nitrogen. The inspiration of a man at the moment of explosion may introduce enough of these gases to cause death from want of oxygen."

5. Prolonged inhalation of noxious gases—*e. g.*, carbon monoxide—while lying unconscious or partially buried.

Aschaffenburg, who has also given special attention to the traumatic effects of high explosives, concludes that they occasion organic changes in the central nervous system much oftener than is usually supposed. Aschaffenburg's findings would seem to be of special significance in their bearing upon the question of the pathology of the traumatic neuroses. He examined soldiers in Flanders who had been exposed to shell fire in the trenches but had escaped unwounded and were apparently well. The examinations took place in most cases, within 24 hours after leaving the trenches. Of 74 men so examined 67 showed unmistakable signs of localized organic lesions of the nervous system although not, as a rule, of serious nature. A second examination a week later showed that some but not all of these phenomena had disappeared. Here were cases therefore in which an organic basis was present but no traumatic neurosis had developed. Aschaffenburg gives the result of his experience in these words: "In assuming organic changes as one of the consequences of shell explosion, I do not thereby agree with Oppenheim that the nervous symptoms are to be attributed to these changes. On the contrary it is to be noted that the most exaggerated hysterical cases which develop after exposure to shelling are the ones which in general exhibit organic symptoms least of all."

As complementary to this evidence is the testimony of numerous authors that the severe types of injury to brain and cord are regularly unaccompanied by outspoken neurotic syndromes. Villaret and Mignard[17] reporting 350 cases of brain injury in soldiers were unable to observe any characteristic mental symptoms accompanying. They noted only the general evidences of fatigue, or occasionally confusional states suggesting epileptiform equivalents.

Buzzard states that during 18 months experience in London in wards for the treatment of organic nervous cases from the front, he saw no example of hysterical manifestations such as usually constitute the condition called traumatic neurosis.

Among scores of Canadian soldiers returning with severe head injuries, most of them shrapnel and gunshot wounds with loss of portions of the skull, symptoms of psychosis or traumatic neuroses have practically never been observed. The only fairly constant general symptoms reported have been headache and vertigo. Other symptoms have been of the projection variety dependent upon injury to particular regions of the brain.

Conclusions.

In summing up the effect of war upon the nervous system we find:

(1) Cases with gross lesions of nervous tissue, peripheral or central, present questions essentially surgical and neurological. Specific psychotic symptoms do not, as a rule, accompany them. In particular such lesions do not give rise to the so-called traumatic neuroses.

(2) Apparently any individual of sound constitution and inheritance may at the front exhibit minor, transitory neurotic symptoms which are strictly reactive and may be classed as physiologic.

(3) That the severe war neuroses may also, under certain circumstances, develop in persons apparently quite normal has been asserted by competent observers; but the concept of normal is so elastic that a definitive answer to this question may never be forthcoming.

[17] Paris médicale, September 2, 1916.

(4) It remains true however that in the majority of severe war neuroses of all types there is evidence of a personal element of psychopathic potential.

(5) The factor of exhaustion may lead to collapse or to acute transitory fatigue states, and if severe and protracted, to progressive physical deterioration. War experience has not established its etiologic importance in the neuroses or psychoses.

(6) Psychic disturbances among troops may be, (a) accidental, *i. e.*, such as occur in the community generally and cannot be attributed to service, and (b) reactive, those which stand in some specific relationship to the conditions of army life.

(7) The reactive group is made up essentially of psychoneuroses, which may be divided epochally into (i) anticipatory neuroses, and (ii) trench neuroses.

(8) The type of the trench neurosis is the condition called "shell shock," which usually consists of a transitory concussion syndrome followed by a more or less protracted neurotic phase.

(9) Trench neuroses occur usually in unwounded soldiers. There is no satisfactory evidence that trauma plays any part in their causation. There are well-qualified observers who hold that as a result of contemporary military experience, the concept of the so-called traumatic neuroses should be abolished.

(10) The drift of opinion is unmistakably toward the psychogenic basis of war neuroses of all types, including shell shock. Even in an initial unconsciousness or twilight state of some duration there is evidence that the psychogenic element may have as great if not a greater rôle than the item of mechanical shock, although this is also important.

(11) Clinically the trench neuroses present in the main hysteric and depressive-neurasthenic syndromes or combinations thereof. In this sense therefore there is nothing specific or new about them.

(12) Their distinctive character resides in the fact that the precipitating causes are unique and strongly color the symptom pictures; further in the conspicuous reactive motor phenomena, and in the more or less specific ideogenic moments.

PSYCHONEUROSES, PSYCHOSES AND MENTAL DEFICIENCY IN 2000 CASES CONSIDERED ESPECIALLY FROM THE STANDPOINT OF ETIOLOGICAL INCIDENTS AND SEX.*

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The psychic manifestations described in this study have been a subject of carefully kept observations covering a period of several years. The object of making a separate study of this series out of a vast amount of material in hospital and extramural work was to ascertain particularly the nature and rôle of immediate causative factors so that correctly based inferences could be drawn with regard to the problem of management and as a contribution to the problem of prophylaxy.

The entire series presented the following groups: 1100 cases of psychoneuroses, 660 psychoses, 240 cases of mental deficiency with morbid psychic manifestation. The following table gives a detailed account of the varieties of each group:

Psychoneuroses.

275	cases	of	obsessions.
250	"	"	phobias.
300	"	"	hysteria.
110	"	"	aboulia.
100	"	"	anxiety neurosis.
15	"	"	hypochondriasis.
50	"	"	folie de doute.

Psychoses.

210	cases	of	manic-depressive.
150	"	"	dementia præcox.
75	"	"	paretic dementia.
50	"	"	paranoia.
50	"	"	involution melancholia.
25	"	"	acute confusion with delirium.
100	"	"	depression without delusions.

* Read (by title) at the seventy-second annual meeting of The American Medico-Psychological Association, New Orleans, La., April 4-7, 1917.

MENTAL DEFICIENCY.

200 cases of feeble-mindedness of mild degree.
40 " " greater degree.

In these 240 cases at various times during the period of observation phenomena characteristic of psychoneuroses or psychoses had been in evidence.

A very instructive chapter constitutes the study of the *psychoneuroses* from the standpoint of etiological incidents.

It is quite solidly established that individuals who present episodically during their lifetime manifestations of psychasthenia are endowed with a psychopathic constitution. They usually present various anomalies of character and their chief characteristics lie in a defective or inefficient adjustment to the environment. The obsessions, imperative impulses, phenomena of special fears, hypochondriacal ideas, fixed ideas, hysterical paroxysms, aboulias, states of anxiety, states of doubt or indecision are all manifestations which have at the time of their appearance psychogenetic factors at work, but it remains undeniable that they occur principally, if not exclusively, in individuals with that special make-up which constitutes a neuropathic underlying basis.

A close observer cannot fail to see that in normal life every one of us is subject to the same emotional elements which form a basis for psychogenetic agents and still the psychasthenic manifestations are not in evidence. If psychogenetic factors are apt to produce abnormal psychic phenomena in some individuals, it is strikingly evident that the latter are especially predisposed to morbid manifestations and are readily influenced by causes of a disturbing character. This predisposition which constitutes the psychopathic make-up may be acquired through toxic agents such as syphilis, alcohol, tuberculosis, or it may be hereditary. In the latter case are usually observed either identical or similar psychic phenomena in parents or near relatives or else some different type of disorder in the domain of cerebral functions.

In the group of psychoneurotics of my series an inquiry was made with regard to predisposing factors. In the largest majority of the cases (700) a morbid heredity could be traced. Psychoses, alcoholism, constitutional diseases, such as diabetes, pernicious anemia, gout, malignant neoplasms, syphilitic manifestations could all be revealed in the family antecedents. Psychoses and

various psychic manifestations predominated. Two hundred and fifty individuals presented a personal history of alcoholism or syphilis or both but without a morbid heredity. One hundred and fifty psychoneurotics gave morbid family histories combined with personal degenerative elements, such as tuberculosis, alcoholism, syphilis and protracted malaria.

It is now interesting to consider the factors which played an immediate rôle in the development of the psychasthenic manifestations. It was mentioned above that the latter occur episodically in the patient's life. They disappear with or without treatment and reappear. Some of my patients had as many as ten or fifteen recurrences in a period of two or three years. Recurrences are characteristic. The very nature, the fundamental underlying make-up of such individuals are bound to lead to repetition of psychasthenic disorders. The latter may repeat themselves exactly or else manifest themselves in a different form. Thus we observe at one time phobias, at another aboulias, at another doubts or obsessions. Sometimes we observe combinations of two or more varieties. It is self-evident that when we deal with a mental state whose chief characteristics are: instability, want of determination, a fundamental inability of adaptation to surroundings and circumstances, deficient manner of reflecting upon one's own conduct and relations to others, defective or perverted sentiments and instincts, inability to see things properly and to feel normally, absence of the faculty of proper appreciation of facts and therefore frequent commitment of errors, absence of good judgment and consequently inability of carrying out properly and to the end plans and projects initiated by themselves or others; want of properly measured initiative and inability to see and concentrate attention upon the main issue of undertaken tasks—when therefore we deal with individuals presenting such a defective mental constitution, we are to expect superimposed mental disorders of a psychasthenic nature at any time during life. A psychopathic make-up stands ever ready to take in and hold on to disturbances referable to functional nervous manifestations. All what is needed is an exciting cause. The factors that initiated so to speak in my cases the psychasthenic disorders were all of affective character. Affectivity is the fundamental basis of the personality. It designates painful or pleasurable feeling, mood and emotion. It con-

MENTAL DEFICIENCY.

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trols our actions, and as Bleuler says, we act only under the influence of pain or pleasure and the affects produced by them maneuver our logical reflections; also volition and effort represent but one side, while affectivity is a broader conception. A. Godfernaux in his book "Le sentiment et pensée" justly remarks that logic of sentiment conforms more to the deep necessities of existence than the cold and rational laws of association of ideas; the affective state is the dominating force, the ideas are only its subjects.

In the affect therefore lies the inhibiting or promoting force for ideational complexes. The latter may be crowded out and replaced by others through the affect and, as Jung expresses himself, the strongest ideas and ideas that have the firmest hold on the personality may be totally inhibited by the affect. This is an every-day experience in a normally and abnormally constituted individual. The difference lies in the degree of susceptibility of the individual to formation of intense affects. The greater the susceptibility, the greater the emotional force, and the greater is the number of complexes formed. An important feature of the affects to be borne in mind is its perseveration which is the most powerful factor in constant formation and reformation of psychic activities in the form of association-complexes. The influence of the affect can always be seen in those complexes, which are thus maintained over an indefinite period of time and in which the affect acts as an *agent provocateur*. Under the influence of the weakest stimulus the affect promptly produces or reproduces complex disturbances. The facility of production of these disorders is highly characteristic of psychoneurotic individuals. They possess what Jung designates as, "complex-sensitiveness." In them the affects are of a highly organized character, in them the perseveration of the affect is exceptionally evident, in them the rapidity of formation and the number of association complexes are extensive, in them we consequently observe recurrences in the same or in other forms of the abnormal psychic activities which manifest themselves in aboulias, deficient will, phobias, doubts, obsessions in general.

These few considerations concerning the intimate psychological workings explain the fact why in some of my patients 10 or 15 recurrences took place in a period only of two or three years. It

is interesting on the other hand to take account of the character of the incidents which preceded *immediately* the onset of the psychasthenic phenomena and acted as stimuli to the highly organized feeling-tones which we call "affect." They are as follows: Disappointments of various sorts occurring against all expectations (575) cases, sudden state of anxiety about the health of nearest relatives or children, sudden fright, loss of fortune or of ordinary means of livelihood, sudden changes in a preexisting physical ailment, the sight of mutilated animals or human beings, séances of spiritualism, séances of hypnotism, dreams of a frightful character, adverse results of political elections, loss of positions held for several years, fortune telling, an unexpected imprisonment, sudden meeting of creditors, assault and battery.

We observe that the largest majority of the cases present disappointments. It is also curious to notice that the greatest number of the disappointing factors are those referable to marital relations, such as abandonment of a fiancé to marry another woman, abandonment of a wife by the husband. Next in order of frequency comes loss of affection of children for their parents (250) cases. The other incidental factors mentioned are almost equally distributed in the remaining cases of the psychoneuroses.

Comparing the psychasthenic manifestations following the two most frequent exciting factors with those of the other factors it was noticed that the former were more persistent, more profound, more disturbing than the latter. Moreover combination of psychic disorders were observed in a large number of these cases. Thus phobias were present in association with folie de doute, obsessions were of a multiple character, hypochondriacal ideas concerned several conditions, in some cases the phobias were of diverse nature, a state of anxiety was very much pronounced. This interesting phase in my cases suggested first of all the fact that marital relation in its broadest sense of the term, also the parental relation to the offspring are the most deeply rooted and possess great power to impress profoundly the ego-complex. Secondly, it demonstrates with evidence that the stronger the affect, the stronger and more diverse will be the psychasthenic disorder. A neuropathic individual dominated by a complex which is under the influence of a powerful feeling-tone (affect) will react to powerful stimuli in a stormy manner and create intensive dis-

turbances of a durable character. As to the reason why marital disappointments and loss of affection of children for their parents should produce the strongest and most persistent effects, the Freudians will find here a basis for consideration of sexual complexes in which the affect is continuously maintained by unsatisfied sexual desire. But another interpretation is as well admissible. If we consider the personality in such cases which by reason of its psychopathic properties is unable to assert itself and overcome psychological storms created by special stimuli, if we consider that in all human beings emotional inhibitions are stronger than the most powerful logic and that in psychopathic individuals the predominance of one over the other is still more marked—if we take all these special features into consideration, we can readily explain the most powerful effect of the above etiological factors which even in normal life are capable to produce lasting complexes. As complexes extend over thought and force it always in a certain definite direction, the obstinate persistence and repetition of psychasthenic phenomena are thus explained.

The 1100 cases of psychoneuroses present besides etiological incidents also an interesting feature with regards to sex. It was remarkable to observe that the largest majority (813) were women and more unmarried than married ones. Again the above discussed etiological factors which among all proved to exercise the most potent influence on the affect and through the latter on the ego-complexes have also interestingly enough occurred more in women than in men and in mothers more than in fathers. Among the other exciting causes which were enumerated above séances of hypnotism and of spiritualism have had also a powerful disturbing effect more in women than in men. It is legitimate therefore to conclude that affective states which are the expression of feeling-tone are more strikingly developed and more readily responsive in females than in males. As we have seen above, the stronger the affect the stronger are the complexes and the more frequent are the disturbances thus created in thought and action.

PSYCHOSES.

In considering the various psychoses of my series of 600 cases it is interesting to note that the etiological incidents immediately

preceding the onset of the psychic disorders are not identical in all and do not possess the same essential characteristics. The dementia præcox group and the paranoia group presented great similarity in this respect and both differed totally from the other cases. The etiological factors of involution melancholia and simple depression were also similar. The manic-depressive group stands isolated. The delirio-confusional states are also a group apart. Finally paretic dementia group is an affection *per se* and in spite of a special consative agent (syphilis) the factors immediately preceding the onset of the disturbances resemble greatly those that were found in the group of simple depression.

The cases of *manic-depressive* insanity were singularly interesting. First of all, females predominated (150) and young more than middle aged ones. If the final outcome of these patients condition is not yet known, nevertheless the several alternating periods of exaltation and depression which occurred during my observation time viz., during a period of 10 years, were sufficiently characteristic to classify them as manic-depressive psychosis such as conceived by Kraepelin. In the largest majority incidents of a depressive character preceded the onset of the psychosis and as follows: In the young individuals a sudden depressive emotion such as abandonment by a person who intended to marry, sudden depressive news concerning the health of nearest relatives, disappointment from failure in college examinations, sudden discovery of marital infidelity. In older persons strong disappointment in undertakings, in business transactions, heavy financial losses, but more frequently disappointments from an inability to meet all the obligations towards the family.

The etiological elements just enumerated could be considered as exciting factors as they preceded closely the apparent onset of the disorder. It must be borne in mind, however, that disturbing factors of such a nature may occur during a normal life period of almost every person and still not every healthy person develops a manic-depressive psychosis. A close inquiry into the personal and family antecedents revealed the fact that the largest majority of the group presented some and in certain cases very conspicuous evidences of underlying conditions of a hereditary or personal character which rendered the manic-depressive indi-

viduals predisposed to the psychosis. Thus the greatest number among them exhibited during their former life psychasthenic phenomena of the most various kind, viz., obsessions, phobias, hysterical paroxysms, also choreiform movements. Morbid hereditary histories were obtained in a great many individuals: insanity, alcoholism, tuberculosis and various neurotic manifestations were all in evidence. We therefore see that in the group of manic-depressive psychosis factors of a strong psychic character immediately preceded the development of the mental affection but a predisposing psychic constitution must have necessarily been present. As to the former they were all profound emotional factors which are apt to create complexes of a most disturbing nature.

In the first chapter of this study the relation of emotional agents to mental phenomena was discussed. Applied to the present psychosis it will facilitate to a certain extent the understanding of the phenomena observed in the manic-depressive psychosis.

There was another important feature in the study of this psychosis. I could observe that there was a certain relationship between the alternating phases of the affection and the character of the preceding emotional causes. Thus the depressive periods were greater in number than the manic periods in the cases of the older persons who sustained financial losses or those who found themselves in difficulties in meeting obligations towards their families. On the contrary the cases which were preceded by such factors as marital infidelity or disappointment in matrimonial undertakings, presented briefer depressive phases and more prolonged and more frequently occurring periods of a manic state. This observation is interesting from a psychological standpoint but I will contend myself for the present with merely registering this suggestive observation.

Dementia Præcox.

There were 150 cases of this affection. The largest majority (112) was of the hebephrenic type. The catatonic variety was observed in 17 cases and 21 cases presented the paranoid form. The greatest number of patients of this group gave no history of disturbances immediately preceding the onset of the mental

affection, but in 56 cases factors of an exhausting character could be traced. Thus in 30 individuals great mental application was observed, such as preparation for college entrance, competitive examinations, uninterrupted strenuous mental application during the evenings and late at night for months in succession. The latter occurred in persons who were compelled to work manually during the day hours to gain a livelihood. In eight patients sexual excesses of an unusual intensity apparently preceded the development of the conspicuous symptoms of their dementia. As dementia præcox is essentially a disease of slow and insidious evolution, it is undoubtedly difficult to determine with any degree of precision whether any of the above factors could serve as exciting causes of the disease. Nevertheless no doubt could be entertained as to the fact that the most conspicuous symptoms of the disease began to appear after those factors had been at work for some time. Thus the disappearance of affectivity and of reaction to external impressions, break in intellectual capacity, poverty of emotivity, alteration in voluntary and spontaneous activity and in initiative—all symptoms essentially characteristic of the grave affection called dementia præcox—have all made their conspicuous appearance and kept on developing progressively after the exhausting elements mentioned above had been in existence. The absence of the grave symptoms of the disease prior to the stimulating effect of those elements make the latter reasonably and logically certain to be considered as important etiological factors. As to the problems of predisposing causes there was no difficulty in finding an avalanche of morbid hereditary factors in almost every case of the group.

With reference to the varieties of dementia præcox no relationship could I find between the nature of the above mentioned exciting causes and the type of the disease. The same etiological elements were present in the paranoid and hebephrenic also in the catatonic and hebephrenic forms.

As to the occurrence of the affection with regard to the sex, the hebephrenic type was observed almost equally in males (54) and females (58), but in the paranoid form there were more males (15) than females (6). There were also more male catatonics (10) than females (7).

Paretic Dementia.

Some of the paretics were seen before the Wassermann era and the diagnosis was made exclusively on the clinical picture of the disease. In all these cases (30 in number) a syphilitic history was elicited. The remaining group (45) was subjected to a blood-serum or spinal-fluid tests also to the colloidal gold reaction. All gave positive results to the syphilitic nature either with one or two tests.

Paresis being a mental affection of slow onset and development, it is difficult to speak categorically with regard to exciting etiological factors. Nevertheless it was interesting to observe that there were two especially frequent etiological moments preceding almost immediately the rapid development of the typical symptoms of the disease. They were: mental strain for a long period and alcohol. The first was met with particularly in business men and especially in men who experienced financial difficulties uninterruptedly (35 cases). As to the other factor, it is interesting to note that there were no marked excesses of alcoholic beverages but the latter were used moderately by individuals who formerly were total abstainers: they began to drink to combat the neurasthenic manifestations which are so frequently present in the early periods of paresis (30 cases). These two factors were so conspicuous that they could be considered as immediate etiological moments in the sense that their influence was such that the disease which is essentially syphilitic began to progress and the most characteristic symptoms developed rapidly.

The occurrence of paresis with regard to sex was observed in the proportion of 55 males to 20 females.

Paranoia.

The fifty patients of paranoia presented very deep predisposing etiological factors of a morbid character. There were personal as well as family evidences of mental and physical degeneration. The slowness of development, the chronicity, the incurability of the affection all testified as to a profound psychical damage which could not be influenced by extrinsic factors. Indeed in the entire series of my cases no provoking or exciting elements of any special significance could be found that could in any way be

logically correlated with the characteristic delusive ideas which play so important a rôle in paranoia.

As to the occurrence of the disease in both sexes my series show the proportion of 37 males to 13 females.

Involution Melancholia.

Following the conception adapted by the majority of writers in accordance with the teaching of the Kraepelinian school—this group comprises cases of psychic depression occurring in middle life between 40 and 60.

The fifty patients studied especially from the standpoint of etiology presented in the largest majority (39) more or less marked evidences either of a morbid heredity or else individual features of a psychoneurotic type. In the latter case histories of some psychasthenic phenomena in former life were obtained. In the remaining eleven cases no predisposing causative factors could be revealed. The most interesting observation was that concerning the incidental factors immediately preceding the onset of the mental affection. They were all of a strongly emotional and depressive character. The following incidents were observed: loss of members of the family through protracted diseases, anxiety over the health of children when the latter are ill for a long period of time, abandonment of wife by her husband for another woman, accidental physical trauma followed by intense fright. The latter factor was observed in 13 cases and after a brief period during which general nervous phenomena, such as insomnia, fear, tremor, etc., were in evidence, psychic depression followed.

In the cases of melancholia the relationship between the emotional factors and the mental affection was manifestly closer than in any other psychosis previously studied. In some of the cases the former sound mentality was strikingly affected by the depressing events enumerated above almost immediately or rapidly after their occurrence. The presence or absence of the unsystematized delusions bore no relationship to the character of the preceding etiological events but the degree and intensity of depression were in direct proportion with the intensity of the exciting factors and with the personal affectivity of the individual. Thus loss of children particularly had in some cases a most

profound influence on the intensity of the depression and curiously enough on the duration of the affection. The few cases of this character (7) at the time of writing these notes have not yet recovered and their mental affection has been in existence several years. Here, evidently, the action of the strong emotional factors on the psyche was such that a new complex appeared very prominently and crowded all the others into the background with an extraordinary persistence. Perseveration which is so characteristic of the affect, in addition to the great emotional force which was present in the persistent cases, contributed towards the formation of lasting complexes.

The 50 cases of melancholia presented the following ratio with regard to sex. There were 38 women to 12 men. The occurrence of melancholia in women at the age of involution of the reproductive organs is not infrequent. Although a climacteric period exists in man, nevertheless the high frequency of melancholia in middle age women speaks in favor of the disturbed physiological function of the ovaries as being at least one of the etiological factors in the mental disorder.

Acute Confusion with Delirium.

In 25 cases this mental condition was seen following (1) febrile diseases of acute infectious character (12 cases), such as typhoid, pneumonia, grippe; (2) trauma (5 cases); (3) prolonged hard physical labor without recreation (8 cases). It was interesting to observe that with the exception of two patients no other presented any predisposing factor of a morbid character, viz.: neither hereditary nor personal. Of the two patients who sustained severe traumatism in railroad accidents one was alcoholic, the other presented psychasthenic phenomena in his former life and his brother and an aunt were in insane institutions. Both patients were injured in the same accident and were unconscious for several hours; both had scalp wounds. Forty-eight hours after regaining consciousness they develop a confusional state. The alcoholic individual became at first intensely delirious and was hallucinatory, the other had a mild delirium of brief duration. The delirium of the first was prolonged, it lasted with various intensity for two weeks and when it finally disappeared the confusion remained for four months. Both individuals made a complete recovery.

The other 23 individuals of the series presented their mental disorder in various degrees and apparently in direct relation to the character of the etiological factor. Thus the postfebrile cases suffered the longest and showed more confusion, more incoherence and more delirious elements than the traumatic (except the alcoholic) and the exhaustive cases. The traumatic cases were less pronounced than the exhaustive cases.

As to the various infectious processes the postpneumonic cases presented more pronounced but less prolonged confusion than the others, but the postgrippal cases presented the least pronounced but the most prolonged confusion. The traumatic cases were next to grippal cases with regard to the duration of the confusional elements.

In all the cases of this group the direct relationship between the confusional disorder and the preceding etiological factor was evident. As to the relative occurrence of the disorder in both sexes there was no predominance of one over the other sex.

Depression Without Delusions.

In this group were not included cases of involution melancholia, nor cases typical of manic-depressive psychosis. First of all, the entire group of 100 patients was composed of young individuals, from 16 to 32 years of age. In the next place they all had during the observation period but one attack of depression accompanied or unaccompanied by a state of anxiety. A question arises, were the attacks of depression manifestations of the manic-depressive psychosis, or could they be considered as a separate and independent mental state?

The fact that the depressive state existed for many weeks or months but once in several years, that it was accompanied by a state of anxiety and in some cases by obsessions, but at no time by delusions or hallucinations; that the period of depression was not followed by a period of a manic state or by another period of depression during several years of observation finally the fact that the character of the depression was not profound enough so as to lead the individual to despair and abandonment—all these circumstances permitted to classify these cases as independent states of depression having nothing in common with the depres-

sive characteristics of involution melancholia or of the manic-depressive psychoses.

The following factors were observed as etiologically connected with the depressive states. Sudden misfortunes occurring in the families of the nearest relatives, such as death and acute diseases; disappointment in love, fear of becoming insane, fear of developing tuberculosis or malignancy, fear of extreme poverty because of loss of position and fear of the dependent family becoming destitute. While these etiological causes immediately preceded the development of the depression with or without anxiety, nevertheless powerful predisposing factors could be traced in every one individual of this series. Functional nervous diseases, insanity, alcoholism were present either in the family or in the individuals themselves. The intensity and duration of depressive state were apparently in direct relationship with the character of the provoking factor and with the affectivity of the given individual. The considerations mentioned in the chapter on the psychoneurosis with regard to rôle played by the feeling-tone in formation of complexes find their application here. To avoid repetition the reader is referred to the above chapter.

The entire group of the depressive cases consisted of 65 females and 35 males. Disappointment in love affairs was the predominating factor in the females, although a sufficiently large number of males were seen with this same exciting cause. Calamities occuring to nearest relatives, also fear of poverty—these two factors had their greater effect on males than on females.

Mental Deficiency.

Of the 240 mental defectives there were 180 who presented at various times during the observation period manifestations of a psychasthenic order. Obsessions of hallucinatory character, phobias, states of anxiety were all present at various intervals. Curiously enough, shocks of a most trifling character and especially sudden fright—were practically the only exciting causes for the psychasthenic phenomena. The uniformity of reaction of these causative factors was very striking.

More interesting, however, are the remaining 60 cases in which symptoms characteristic of genuine psychoses were observed. There were 40 cases simulating dementia præcox, especially the

paranoid form; 10 cases presenting the manic-depressive type; 15 cases presented only periods of depression, five cases only hallucinations of auditory and visual character without delusions.

Without entering into a detailed description of these various conditions, which, although of the highest psychiatric interest, are not the object of the present contribution, I will nevertheless consider briefly their general characteristics such as observed in my 60 cases. The most conspicuous features are: the sudden onset of the mental disorder, its brief duration (from a few days in the manic-depressive form and in hallucinosis to a very few weeks in the dementias), and rapid or even sudden termination. A few cases of the dementia præcox variety had several brief attacks and ended in total dementia probably by reason of repetition of attacks. The largest majority of the præcox cases and all of the other forms have made a complete recovery from each attack of the superimposed mental disorder.

Another characteristic feature of the incidental psychoses in mental defectives is the shallowness and the lack of depth in the individual manifestations of the psychoses. Depressive states of anxiety, delusive ideas, hallucinatory images are all superficial and do not affect the individual's consciousness profoundly enough to alter substantially his mode of thinking, feeling and acting.

In considering the etiological factors, which is the chief object of the present study, I found that the provocative causes of the psychoses were all of a physical character.

Alcohol, excessive use of cigarettes and masturbation were the three principal factors which immediately preceded the onset of the super-added psychic disorders. Chronologically there was a most direct relationship between those agents and the disturbance. It is most interesting to note that we do not find here etiological factors of a purely psychic character which were so conspicuously present in the individuals with a normal mentality who happened to develop psychic disturbances, such as discussed in the previous sections. Evidently there is a fundamental difference in the affectivity and in the influence of the latter on formation of complexes of ideas in individuals of a normal and of a deficient mentality. The elements of psychic life, namely sensations, emotions and ideas, which form the essential basis of the personality are evidently different in the two categories of individuals.

The psyche of mental defectives does not undergo the same influences when complexes increase or decrease in intensity.

In the 240 cases of mental deficiency the predominance of one sex over the other was different in the cases with psychasthenic and the purely psychic disorders. Of the 180 psychoneurotics there were 120 females and 60 males. In the 60 cases with incidental psychoses there were 45 males and 15 females.

Conclusions.

A rapid glance at the individual forms of psychic disorders described in the present study shows most conspicuously a certain relationship between the latter and the etiological incidents immediately preceding them. While in the majortiy of instances these incidents can in no way be considered as the fundamental causative factors of the psychic disorders because of the profoundly pathological nature of the individual's mental makeup, nevertheless in view of the onset of the disturbances occurring immediately or rapidly after the appearance of the incidental factors, also in view of the emotional character of the incidents which *per se* must have had a powerful influence on the affectivity and through the latter on the formation of ideational complexes, for all these reasons an effective relationship must be unhesitatingly admitted. Thus we see that the vast field of preventive medicine may legitimately include also the domain of psychiatry. Mental disorders do occur in consequence of disturbing factors of a special nature, namely such as are capable to influence the feeling-tone of persons whose mentality is potentially unstable by reason of hereditary or individual morbid predisposition. Persons of such a pathological makeup are inevitably prepared to develop psychic disorders at any period of their lifetime but if by proper and judicious measures factors of a pronounced emotional significance can be avoided, the psychic collapse may be prevented totally or at least it may be indefinitely postponed. The predominant influence of some etiological factors over others in initiating a mental breakdown is not only psychologically interesting but it is also of the highest practical importance.

Notes and Comment.

PENNSYLVANIA AND STATE CARE FOR THE INSANE.—In this JOURNAL for April, 1915, Vol. LXXI, p. 795, in commenting upon the survey of the state and county institutions for the insane in Pennsylvania we said: "The revelations made by Dr. Haviland show that the time is ripe for radical action by the committee [On Lunacy of the Pennsylvania Board of Public Charities] and that the restraint apparatus once removed, some constituted authority should see that it is not again put in use." This had reference to the discovery by Dr. Haviland of patients in iron handcuffs and chains, in dungeon cells, in misery and cold with improper and scanty diet, surrounded by filth and degradation almost beyond belief, if one did not know that these were the inevitable consequences of county care.

The Public Charities Association of Pennsylvania, a volunteer organization, is attempting, what the legally constituted authorities have too long neglected, to arouse in the state a public sentiment demanding proper care for the insane and mentally defective. Surely the great commonwealth, with its wealth, and intelligence should follow the example set her by her sister states and effective measures be put upon the statute books, and ample appropriations made to secure justice to a class of her citizens who can make no appeal for themselves.

We do not know who is guilty, but surely some body exists in the state which long ago should have spoken to the legislature with authoritative voice, which long ago should have pointed out the neglect of an obvious duty and the remedy.

We can quote in this connection with whole-hearted approval from the recent report of Dr. W. H. Hattie upon the institutions of Nova Scotia, in some of which he found conditions comparable with those existing in Pennsylvania. He says: "When one visits repeatedly such institutions as these and finds so little evidence of willingness on the part of those responsible for their maintenance to adequately remedy the defects which are so apparent, one feels

that the inmates must often repeat in substance at any rate the prayer of Sir Philip Sydney, 'From them that use us thus, Good Lord deliver us!' Five hundred years ago, John Ball wrote that, looking out over England, he saw 'the great treading down the little, the strong beating down the weakly, the cruel man fearing not, and the Saints in Heaven forbearing, and yet bidding me not to forbear.' Are conditions in some parts of our province to-day better than those of 500 years ago in England?" Are conditions in some parts of Pennsylvania any better?

Dr. Carlos F. MacDonald long the head of the New York State Commission in Lunacy, now the New York State Hospital Commission, whose work for state care of the insane is so well known, has written Governor Brumbaugh a stirring appeal on behalf of state care, which we are happy to be able to reproduce below with our hearty endorsement:

15 East 48th Street, New York, February 23, 1917.

Hon. M. G. Brumbaugh, Governor of Pennsylvania, Harrisburgh, Pennsylvania.

MY DEAR GOVERNOR BRUMBAUGH: My attention has recently been called to certain statements contained in a paragraph in the preliminary report of the Board of Commissioners of Public Charities of the State of Pennsylvania, under the head of "State Care of the Insane," which it seems to me, in the interest and welfare of the dependent insane in your state, ought not to be allowed to stand unchallenged, especially as said statements are, in my opinion, widely at variance from the facts, as well as from the consensus of opinion of substantially all experienced alienists, and particularly of those who are actively engaged in the care and treatment of the insane, and in the management of institutions for that class of dependents.

The statements to which I particularly refer, which would be most detrimental to the welfare of the dependent insane of the state of Pennsylvania, should they be accepted as reliable, and become a determining factor in the action of the governor and the legislature in deciding the question of state care, are as follows:

"STATE CARE OF THE INSANE."

"The overcrowding of the insane in the various institutions is no new subject. It is well known alike to you and to your board of charities. It has been a matter of the utmost concern to us. Alienists are not yet agreed as to the causes, or even the best method of treatment of insanity. Different theories are being tried out and it will require years to ascertain what are the best methods of treatment and the most desirable forms of housing and care. Why then should we now fasten upon the state a system of entire state care which has not been proven to be the best, only to find, perchance,

in the near future, that it must all be done over. In any event we are persuaded that the immense amount of money required to provide state buildings in which to house all of the insane, as has been advocated in some quarters, constitutes an insuperable objection to the proposal that the commonwealth should now provide hospitals for all of this class of dependents. The records now show more recoveries and less complaints from the small institutions than from the large."

The effect of the foregoing statement, if accepted as true, would, I fear, tend to delude the members of the legislature of Pennsylvania into believing that state care of the insane is either an untried experiment, or a procedure of doubtful value.

It is not a fact that "Alienists are not yet agreed as to the causes or even the best method of treatment of insanity."

It is not a fact that "different theories are being tried out, and it will require years to ascertain what are the best methods of treatment, and the most desirable forms of housing and care."

It is not a fact that a system of entire state care "has not been proven to be the best"; nor that "perchance in the near future it must all be done over." It is true that it will require a large amount of money "to provide state buildings in which to house all of the insane," but that fact does not constitute an "insuperable objection to the proposal that the commonwealth should now provide hospitals for all of this class of dependents," for the reason that, while the increased cost to the state, incident to the adoption of state care, would probably not increase the state's tax rate more than one mill, the tax which is imposed upon the counties now caring for their own insane would cease. Moreover, some of the larger county buildings now occupied by the insane could, and doubtless would, be taken over by the state and reorganized on a hospital basis, especially those located in or near the large cities, as was done in several of the county institutions in the state of New York. Furthermore, it would do away with the petty graft and partisan influences of local politicians and others which invariably obtain in county institutions, and which always result in unnecessary cost and a low standard of care, experience having demonstrated that proper care and treatment of the insane cannot be successfully maintained in institutions where partisan influences obtain.

Finally, it is not a fact that "The records now show more recoveries and less complaints from the small institutions than from the large." On the contrary, this allegation is diametrically opposed to the accepted consensus of opinion of every authority who is competent to express an opinion upon the subject. The system of so-called "county care," of the insane has also repeatedly been condemned by resolutions of the American Medico-Psychological Association, which is composed largely of eminent alienists throughout the United States and Canada, the most of whom are medical officers in institutions for the insane, both public and private. This association has also repeatedly declared itself unanimously in favor of state care of the insane, the movement for which was first started in the state of New York more than a quarter of a century ago.

I venture to speak somewhat authoritatively on this subject, in view of the fact that I have been connected, both professionally and officially, with institutions for the insane in the state of New York for more than 40 years, during which time it was my privilege to actively participate in the inauguration and consummation of the movement for state care of the dependent insane, especially during the seven years when I was president of the New York State Commission in Lunacy (now the State Hospital Commission), an official body having jurisdiction over all the institutions for the insane in the state, and which established and organized, under statutory authority, the present system of state care of the insane, a system which has long been regarded as a model for other states and countries, and which has been adopted by many of them, until to-day there are only about seven states in the union which tolerate the wretched and barbarous system of county care of their dependent insane.

In 1889, when the New York State Commission in Lunacy was created and clothed with almost plenary power respecting the insane, the system of caring for the dependent insane was a "mixed" one, substantially similar to the existing method in Pennsylvania. There were, at that time, 21 so-called county asylums, including the larger ones located in the cities of New York, Brooklyn and Rochester—the three latter institutions having, up to that time, cared for their own insane in large asylums which were taken over by the state and reorganized as state hospitals when the state assumed the entire care of its dependent insane. In addition to these, every almshouse in the state contained more or less insane inmates to the extent, in round numbers, of three thousand. The condition of these institutions, as shown by a survey of the same by the State Commission in Lunacy, as regards the character of the buildings, their equipment, sanitary condition, furniture, food supplies, medical care, etc., were even worse than those recently found in many of the county institutions of the state of Pennsylvania, as graphically set forth in a recent report on "The Medical Care of the Insane in Pennsylvania," by Dr. C. Floyd Haviland, who, at the instance of the Public Charities Association of the State of Pennsylvania, made a careful survey of said institutions during the six months from June 1 to December 1, 1914. It should be said that the same report shows substantially that the state hospitals for the insane of Pennsylvania, as regards medical care and treatment of their inmates, are conducted upon a much higher plane; whereas the standard of care in many of the county institutions, according to the said report, is of a comparatively low order.

Respecting what has been accomplished in the direction of improvement in hospitals for the insane in the state of New York, as well as in the promotion of the welfare and comfort of their inmates, as a direct result of the adoption of the policy of state care, a perusal of the annual reports of these hospitals would show that their condition, as regards buildings, equipment, sanitary conditions, order and cleanliness, fire protection, furniture, clothing, food supplies, industrial and other occupations, diversions and amusements, discipline, nursing, training schools, medical services, women physicians, laboratory research, mental pathology, after care of the insane,

etc., has been steadily progressive; and that the standard of care and efficiency of management of these institutions to-day is, in all respects, infinitely higher than it was prior to the enactment of the state care law, while at the same time the cost of maintaining the hospitals (prior to the recent era of high cost of living) has been greatly diminished, the average per capita cost per year having fallen in a period of less than three years from the adoption of the state care system, about forty dollars, thus effecting an annual saving of hundreds of thousands of dollars.

The development of state care for the insane in the state of New York has been steadily progressive, and has wrought untold improvement in the condition of the dependent insane of that state, and, as has been aptly said, "marks an era in modern philanthropy which has never been surpassed"; and while it is not claimed that the new system is unlike all other human agencies as regards imperfections, it is claimed that its demonstrable advantages over the wretched system which it superceded are so great as to convince even the most skeptical of its former opponents of its superiority, both in its humane and its economical aspects; also that the principle of state care, founded on the broad basis of science and humanity, when intelligently applied, as it is in the state of New York, and in many other states to-day, stands for all that is best in our present knowledge of the care and treatment of the insane.

In conclusion I beg to say that this communication to you is inspired solely by a long experience with and interest in the welfare of the dependent insane, and I trust it will not be regarded as presumptuous on my part, or as in any way an intended reflection upon the sincerity and good faith of your honorable State Board of Charities.

With great respect, I am,

Sincerely yours,

CARLOS F. MACDONALD.

AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION. SEVENTY-THIRD ANNUAL MEETING.—The preliminary program for the seventy-third annual meeting of the Association has been issued by the secretary and has been distributed among the members.

The meeting is to be held on May 29, 30, and 31, and June 1, at the Hotel Astor, New York.

The papers listed in the preliminary announcement are twenty-six in number and in addition to these there appear the names of twenty-nine members who have promised papers but have not sent in their titles in time for the program. We understand that there are several papers promised in addition to these. If this is true, the time of the members will be fully occupied in hearing papers.

The annual address will be delivered by Professor Edwin Grant Conklin, Professor of Biology in Princeton University;

by some oversight no reference to this appears in the preliminary program.

New York offers many attractions as a place of meeting, and the time selected is one which promises the delights of spring and opening summer days.

A new feature at this meeting will be a scientific exhibit which is being assembled by a committee appointed last year for that purpose.

The exhibit of diversional occupations will also be one which will attract attention, and is, we understand, to be arranged this year upon a plan essentially different from those followed at previous meetings.

In New York and within a distance therefrom which makes access comparatively easy are many institutions, hospitals and schools, which will well repay a visit and inspection. It is to be presumed that the Committee of Arrangements will make a list of these and possibly suggest an itinerary which will permit visits to several.

Hartford, Providence and Boston are within easy distance to the East, while Bloomingdale, at White Plains, and the interesting buildings of the Burke Foundation, with Poughkeepsie are easily accessible to the North. To the Northwest are to be found the State Hospital at Middletown, and the one at Binghamton which has been brought to such an excellent condition by Dr. Wagner. The hospitals at Morris Plains and Trenton, N. J., are reached from New York without difficulty, and beyond are Philadelphia and Baltimore, both of which will offer many things of interest in hospital management and methods.

The National Association for the Study of Epilepsy meets at Skillman, N. J., at the New Jersey State Village for Epileptics on May 28, the day before the opening session of the Medico-Psychological Association, and its meeting will, without doubt, afford many things of interest which may attract some of the members on their way to New York.

Correspondence.

To the Editor of the American Journal of Insanity:

Sir.—The history of the treatment of the insane in Japan is, on the whole a repetition of the struggle between superstition and science as was the case in other parts of the world. I cannot deny that religious and altruistic motives and worldly means, which have facilitated reform and brought forth improvement elsewhere, seem to have been much less active in Japan. It was not long before the insane in this country were put under appropriate care in asylums, whatever kind they might be, and were legally protected by regulations; though these are as old as the first asylum in Japan and are now in urgent need of revision.

At the present time, the number and the equipment of the asylums in this country are so few and so lacking in essentials that a greater part of the patients, perhaps more than four fifths of the whole number, are obliged to remain outside the asylums, most of them being locked in dark cages, attached to their domiciles, a smaller number being kept in the dungeons undiscovered and the rest mingling with society.

In Tokyo, a public asylum, which was the origin of the Tokyo prefectural Sugamo asylum now attached to the medical school of the Tokyo university, was founded during the first two decades of Meiji, about 37 years ago, and it was the second public asylum in Japan, the first one being built in Kyoto and closed shortly after (1875-1882), without making any remarkable development.

At that time the whole construction of the asylum consisted of wooden cages only. Patients were left in the strongly guarded cages to take care of themselves.

In 1886 the first psychiatric clinic in Japan was opened at the Tokyo prefectural asylum by Shuku Sakaki (1856-1897), who was the professor of psychiatry in the medical school of the Tokyo university, and had studied in Germany under Westphal and Mendel, professors of the Berlin university, and his

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lectures and classifications were based upon the above mentioned alienists.

The second professor of psychiatry in the Tokyo university was Kuniyoshi Katayama who belonged to the school of Theodor Ziehen and is the present professor of forensic medicine in the same school. To him succeeded Shuzo Kure, who had been assistant to Shuku Sakaki and who published a text-book of psychiatry 22 years ago, following on the whole the classifications of von Krafft-Ebing, but now an earnest adherent of the Kraepelin school. I was his assistant and published the first edition of my work "Psychiatry," 10 years ago, based on the Kraepelin school for the first time in Japan.

In 1906 Y. Sakaki, who had studied under Ziehen, was appointed the first professor of mental diseases in the medical school of the Kiushu university; the asylum with accommodation of about 100 beds was built according to the European design about six years ago.

In 1904 S. Imamura who is an adherent of Wagner von Jauregg and Kraepelin was choosen as professor of psychiatry in the medical school of the Kyoto university. The hospital under his direction was completed about five years ago which contains about 100 beds.

In connection with the medical schools, asylums of smaller scale were built a few years ago, at Kyoto, Osaka, Kanazawa, Chiba, Nagoya, Niigata, Kumamoto and Nagasaki under directions of professors S. Shimamura, T. Wada, S. Matsubara, T. Matsumoto, S. Kitabayashi, R. Nakamura, J. Misumi and myself.

In each of the above mentioned asylums the non-restraint system is strictly observed. Among them Nagasaki may lay claim to be the first in Japan to adopt the open-door system.

Besides these there are about 20 private hospitals for the insane in this country, each having not more than 150 beds in average.

NABORU ISHIDA.

NAGASAKI MEDICAL COLLEGE,
NAGASAKI, JAPAN,
March 12, 1917.

Obituary.

DR. WILLIAM MABON.

The news of the death of Dr. William Mabon, medical director of the Manhattan State Hospital, Wards Island, New York, was to the editors of this JOURNAL as it was, we have no doubt, to a wide circle of friends, a distinct shock. No one who knew Dr. Mabon, with his great and inspiring virility, with his distinct character of leadership in affairs, could associate with his personality the thought of death.

The end came to him in the midst of all the activities of his professional and social career with a suddenness which accentuates the shock of his decease. After an illness of but a few hours comparatively, he succumbed on the morning of February 9 to an attack of acute pneumonia.

Dr. Mabon was born in New Durham, N. J., in 1860. His father, the Rev. W. V. V. Mabon, for years a professor in Rutgers College, directed his preliminary education, and his degree in medicine was attained in the Bellevue Hospital Medical College from which school he graduated in 1881. After serving as resident physician and surgeon in the Jersey City General Hospital, he became in October, 1885, assistant physician at the State Hospital for the Insane, Morris Plains, N. J. In March, 1887, he became an assistant physician at the Utica State Hospital, Utica, N. Y., where he remained until 1895, passing through various positions on the staff, when he was appointed superintendent of the Willard State Hospital. Here he remained about a year, when he was elected to the medical superintendency of the State Hospital at Ogdensburg, N. Y. He found at Ogdensburg an outlet for his many activities, and left an impress upon the State Hospital, of which he remained the medical head for some six or seven years, which has been a lasting one. From Ogdensburg he went to the Bellevue Hospital, New York, as superintendent, where he remained but about a year. His interests were psychiatric and he

desired to combine administration duties with medical work, so that after filling most acceptably the position of president of the State Commission in Lunacy from 1904 to 1906, he returned to hospital work as superintendent of the Manhattan State Hospital, Wards Island.

Here he remained until his death and here he saw growing beneath his directing medical supervision, a well-managed hospital, the creation of active and scientific clinical work and of many other things which go to make up present day methods in psychiatry, contributing to the recovery, comfort and general well being of some 5000 patients—a larger responsibility than has to our knowledge been assumed by any other medical superintendent. Dr. Mabon appeared as an expert in many cases, but it was as counsellor, consultant, originator of better methods of after care, or of care for the mentally defective, and the habitual criminal, the advisor of philanthropic individuals or committees that he was, outside of the direct sphere of his hospital work, most widely known. In every forward movement in psychiatry Dr. Mabon was to be found.

He saw with a wide vision, he was quick in decision, prompt in action, ready in resource, of excellent judgment.

At the time of his decease he was, as chairman of the Committee of Arrangements, actively engaged in preparing for the forthcoming meeting of the American Medico-Psychological Association in New York. Of that association he was one of the most valued members and one whose guidance was often of great value.

To his hospital associates, to the state and city which he served so well, to his friends who knew his real worth as a friend and above all to his bereaved family, we present our heart-felt sympathy.

Book Reviews.

Instincts of the Herd in Peace and War. By W. Trotter. (*New York: The Macmillan Company, 1916.*)

The first two essays of this book appeared in the *Sociological Review* of 1908 and 1909, the remainder appearing now for the first time. The leading view which the author presents is that mankind in thought, in conduct, in point of view and in action, is tremendously influenced by an instinct which until now has been subject to very little study; this instinct is *gregariousness.* Trotter, by a searching analysis into human thought and conduct, traces the significance of this instinct throughout evolution. His views are founded on a psychobiological basis, and while he does not deal directly with mental disorders, the application of his conclusions to an interpretation of mental diseases is of first importance.

Trotter states that, since man does not exist as an individual alone, the study of psychology should be that of associated, rather than of individual, man. He states that the three primary instincts, namely, self-preservation, nutrition, and sex do not cover all instinctive life. There is a fourth instinct, gregariousness, which is developed because of social tendencies. In the lower animals the three primary instincts are not all embracing; the dog, for example, has a sense of humor. He has feelings of loneliness, he shows devotion to a brutal master. The bee shows a devotion to the hive; these qualities cannot be included under the three primary instincts above mentioned. For their explanation Trotter calls attention to a fourth instinct, that of gregariousness, which biologically approaches the others in importance.

Even in the lower forms of animal life this instinct is of significance; for example, multicellularity is of advantage because it allows for a great range of variability in cells, and specialization in groups of cells, which is impossible in the unicellular organism. In this way variations have a chance of survival, although they may not be immediately favorable to the organism. Thus the organism by multicellularity escapes the rigors of natural selection and thus the unit is enlarged; in bees and ants this is of great importance. Here though the individuals cannot live alone, they are able, by gregariousness, to compete with the vertebrates. An instinct of such biological value must have been as potent as sex, nutrition, and self-preservation in early animal forms.

In primitive human relationship the first society was an undifferentiated horde, and therefore this instinct which was so important in the bee, the ant, the horse, and the dog must have been of corresponding importance in man. In man it would allow more liberal variation and variations wider

from the standard than would be possible if man were a solitary animal. Gregariousness must have been of great protective value throughout some of the evolutionary phases in man, as for example when he assumed the upright position, when the sense of smell was diminished, and when the jaw musculature grew less. Gregariousness must have offered a protective enclosure shielding man from the influence of natural selection, permitting him to decrease in physical strength while gaining in mental strength, and continue to survive.

Boris Sidis has emphasized the significance of gregariousness, but he only observes it is crowds, mobs, panics, etc., where suggestibility is prominent. He has not pointed out that this suggestibility acts in a subtle way continuously in the normal reactions of man.

Gregariousness in the animal is useful for both offensive and defensive purposes. Such an animal to survive must be extremely sensitive to herd suggestion, as otherwise he will follow an individual inclination and perish. In such a society, originality, that is, resistiveness to the voice of the herd, will be suppressed by natural selection. The herd is felt to be the normal environment and separation from it is instinctively resisted.

Suppose such a species of animal to be self-conscious. Then impulses coming from the herd will be as instincts; that is, they will seem self-apparent facts, such as the instinct of eating, or self-preservation, etc. In man the instinct of gregariousness will be expressed by a desire to be identified with the herd in matters of opinion, in dress, in religion and politics. He looks for support of his opinions from a class within the herd, and thus the herd is divided into smaller classes. Anything emphasizing difference from the herd is unpleasant and comes to be regarded as wrong, wicked, foolish, bad form or undesirable. These feelings are held instinctively. A discordant individual is rejected.

Suggestibility then consists of a readiness to respond to herd expression, not in mobs, or in panics alone, but continuously. Tradition develops a resistiveness to new thoughts and opinions contrary to those of herd. Old people are more suggestible to herd influences, as they have absorbed herd stimuli and have fixed traditional opinions.

In early human social structure the individual was surrounded by all sorts of restrictions, dangerous to disobey, even if they were contrary to the teachings of personal experience. The whole life of the primitive Australian to its minutest detail is ordered for him by the voice of the herd. "Reason intrudes as a hostile power, disturbing the perfection of life."

This subordination of man's reason to herd opinion makes for much nonrational belief. By this man comes to have settled views on the origin and nature of the universe, on what happens after death, and on many subjects upon which he is in no position to pass judgment. Such views must be nonrational since the problems they involve are as yet unsettled by the expert. This wholesale acceptance of nonrational belief is a normal intellectual process; such beliefs are held to be rational and are defended as such; for example, both the religious man and the atheist

accuse each other of absurdity, each having a party at his back affording him the necessary sanction.

But man never accepts these judgments without criticism, and in this we have the rationalization of instinctive belief. The belief is primary and the rationalization is secondary. Rationalization shows evidence of great ingenuity in intelligent people, and this may be very misleading. It shows itself in the matter of dress, customs, religions and opinions. It is a normal mechanism, and reason cannot succeed against herd suggestion. In this way false beliefs have all the characteristics of rational truths. When man is identified with the herd he has a sense of right and of righteousness and a happy conscience. If he is not identified with the herd he feels a sense of wrong and of unhappiness.

As a result of this gregarious instinct, the only medium in which man's mind can function satisfactorily is that of the herd which therefore is not only the source of his opinions, his credulities, his disbeliefs and his weakness but also of his altruisms, his charity, his enthusiasm and his power. Irrational belief furnishes a large bulk of the furniture of the mind; it is indistinguishable from rational verifiable knowledge by the subject, and this accounts for the slowness in the advance of true knowledge. We may recognize nonrational beliefs by the fact that they have the qualities of instinct. They seem self evident, and to question them seems absurd, unnecessary, bad form, or wicked. Inquiries into opinions the result of experience are not resented in the same way.

Gregariousness differs from the other three instincts in that it brings man into conflict with his personal wishes and desires; thus the instincts of sex, and self preservation, and nutrition encounter little opposition until gregariousness is introduced with its herd opinions and sanctions. Then conscience and duty appear, and we have individual desires on the one hand and herd suggestion on the other. It is here that we have that conflict which is so important in the development of the mind.

The child is early given the doctrines of the herd. He is told that truthfulness is a great virtue, that honesty is the best policy, that death has no terrors for the religious man, and that there will be perfect happiness in the future life; but personal experience teaches him that the truthful boy is often punished, that the dishonest play fellow may have a better time, that the religious man shrinks from death and is broken by bereavement. This gives the child a vague feeling of dissatisfaction, and it is here that we can perceive the normal unrest of the adolescent. We force the developing mind to assimilate at the same time personal experience and herd suggestion. Primitive instincts are stifled and balked by the herd. It is in the sphere of sex and religion that we observe the most severe conflicts. The herd says that things are fundamentally right, but the child sees inconsistently, cruelty in nature and long suffering all about him.

This conflict may be met in various ways. The individual may become callous with increasing years. Skepticism may rob herd instinct of some

of its force; but rationalization is the most common course and it acts as follows: the individual indulges his personal desires, takes his pleasures, and to compensate he endows a chapel. He is regular in his hospital subscriptions, etc. He accepts sickness, disease, and suffering as all playing their part in advancing man to a divine consummation of joy; thus his conflicts cease. Skepticism is much less common and although it appears to end the conflict the same difficulties may arise years later. Indifference and rationalization are characteristic of normal, sensible, middle age, with a definite viewpoint, and a resistiveness to depressing facts; such people form the backbone of the state. In them herd suggestion has triumphed over experience, and the result of the conflict between personal and social desires has been obscured. This solution of the of the conflict makes for great firmness; such people show an insensibility to suffering and they look to herd tradition for all sources of conduct.

Early man must have been of this type. He had few conflicts and easy rationalizations. He was happy and active; he had much patriotism and his energy was not dissipated by doubts. Such a nation was very formidable; it had unshaken convictions of a divine mission, its patriots were fierce, its priests bigoted, its rulers over confident; such a nation would be a success if no great change in environment made social changes necessary. Today this type of individual forms the directing class, although inadequate in our complex civilization; but their stability has been gained at some expense; they have a hostile attitude toward new experience, they have a limitation of outlook and they have an intolerance towards the new in thought. Trotter speaks of these as the "resistive" type; they are intellectually of inferior value but they exceed the other type in number.

Trotter next proceeds to deal with another type of mind. The past 20 years has seen the birth of abnormal psychology. He considers that mental disease represents the failure to assimilate present experience into a harmonious, unitary personality. Stable types reject unsatisfactory pieces of experience. Conflicts are a result of man's biological history; that is between experience on the one hand and herd suggestion on the other. Man's stability is a measure of how far he is assimilated into gregarious life, and some mental disorders are scars of this conflict. Alcohol has been an unhealthy peace maker in this respect.

As to the characteristics of these "unstable" people: they show lack of steady application of energy, their primary impulses have been thwarted by herd suggestion; such minds are skeptical to patriotism, to religion, to what social success is, and they are readily won to new causes, new beliefs, new quacks, and as readily lose faith in them. They lose in motive but gain in adaptibility; while the resistive types gain in motive but lose in adaptibility. Thus society is formed of two great classes, the *resistive* and the *unstable*. The unstable is increasing.

Roman society at first was of stable type. They were energetic and indomitable, but hard, inelastic and convinced of a divine mission. Later

the unstable type gained in ascendancy. They lost belief in their gods and their traditions and so became a prey to more stable peoples.

These two types divide society between them, and civilization has not produced a medium in which both can act.

Our solution of this question has not been very successful. Society has produced herd suggestion on the one hand and feeling and experience on the other, so people are either driven to resistiveness or to mental instability. The unstable in the past have been spoken of as degenerate. This is an unfortunate word; these degenerate types were to be eliminated. Trotter says that it is the environment that surrounds the mind which is at fault. The unstable are sensitive to feelings and experience and so their value to the state is unquestionable. Their condition is an indictment of the environment which has produced them.

Sensitiveness to feeling and to experience is a quality of higher civilization and so how to change environment to meet this condition, and thereby render it valuable rather than a curse, is the problem. Trotter gives no very good solution to this problem. He says that revolutionary changes will be necessary; if we are to continue to progress our future interpretation of experience must be on a rational basis. Otherwise Trotter thinks that man will not be a success biologically. Unicellular organisms, man's natural enemies, are very variable and man is fixed. He continues: "Our efforts against them are fumbling; society takes no organized move and man accepts his traditions and institutions implicitly and blindly."

Trotter next deals with certain features of the Freudian psychology and particularly that in relationship to mental conflict. He says that the Freudian school, despite their breadth of outlook, have made comparatively little use of the broader aspects of biological reactions which are represented in animal behavior. He also states that while Freud has emphasized the importance of the sex impulses, he has not elaborated the significance of those repressive influences which have controlled this impulse. Trotter states that the repressive influences however must be the stronger since repression is the rule with civilized man.

In the child there is no true conflict in its very early life since no moral issues arise at that time; it is true that there may be physical barriers which control primitive impulses and the child may react against this by anger or rage; but true conflict enters only when there is a moral instinct on the one hand and a personal instinctive expression on the other. For conflict there must be endopsychic influences.

So that for a true conflict there must be two impulses with instinct behind them, and these instincts must be intimate constituents of the personality. We have this conflict in the repressions associated with the sex impulse. A social pressure is brought to bear in a most elaborate way. With the child there is a whole system of secrecy; there are warnings, there are significant silences, snubs, nods and winks, expressions of disgust, surreptitious signals and lame explanations. The mind of man

is very sensitive to this kind of herd suggestion and so these repressing forces are very powerful. The gregarious mind is specifically sensitive, and this sensitiveness to the herd is necessary for true conflict; so the normal mind has egotistic impulses on the one hand and sensitiveness to herd suggestion on the other. This situation exists in all classes and all races, and so the conflict is universally found.

Trotter gives the following explanation of this social repression in relation to affairs of sex: He says that every animal has a bias in favor of repressing the youth in the sexual sphere no matter how veiled by kindness or altruism this may be. The adult reacts in a stereotyped way to youth. The youthful revolutionary is not in reality more absurd than the elderly conservative, but the latter always says that he himself had similar hopes and similar zeal in his youth, but experience taught him wisdom. Trotter says that this is an expression of the pathetic jealousy of declining power. Herd instinct represents to old people the immemorial wisdom of the past. The phase that "man profits by experience" is always on his lips but as a matter of fact he does not do so.

Man's personality, then, is dependent mainly upon three forces: first, his egotistic impulses; second, his sensitiveness to environmental influence and third, the type of these influences. Freud has worked out the first factor and even if his findings are not gratifying to man's self-esteem this is no argument against their truth. Trotter speaks of Freud's findings as an embryology of the mind. Freud in his treatment has indicated that the main thing to overcome in the conflict is resistance. Trotter says that this resistance is of environmental origin and that it is characteristic of the gregarious animal. The same process produces what we call a normal mind. The normal mind is far from being psychologically healthy. Repressions are at times of value because of their social restraint, but they are also the cause of our fears, our weaknesses, our ignorance and our subordination to tribal customs.

The above review, long though it is, necessarily omits many interesting features of this unusual book. No one interested in modern psychopathology can afford to be without it.

SANGER BROWN II.

The Causation and Treatment of Psychopathic Diseases, By BORIS SIDIS. (*Boston: Richard G. Badger, 1916.*)

The content of this volume is based upon regarding psychopathic states as essentially acquired, with heredity a very minor factor. They are chiefly the result of defective education in early child life. "Functional psychosis requires a long history of dissociated sub-conscious shocks given to a highly or lowly organized nervous system, dating back to early childhood." Psychopathic states are to be differentiated from insanity by the readiness of the patient's insight into his trouble. *Psychoneurotic* states lay more stress, subjectively, upon mental symptoms and *psychosomatic* states upon physical ills. The main source of these affections lies in the

fundamental instinct of fear. "Objects otherwise indifferent and even pleasant, may by association arouse the fear instinct and give rise to morbid states, like the 'conditional reflexes' in Pavloff's animals." This is the underlying cause, manifesting itself in psychopathies of many different forms. Like cancerous growths, psychopathic affections are of an embryonic type, and have their genesis in the psychic stroma of early childhood. A dominant characteristic in such cases is extreme selfishness. Very many case histories are quoted at length, illustrating the variety of mental pictures which have come under the author's study, and mostly taken from patients' verbatim accounts. Closing chapters deal with therapeutic methods. The analogy is drawn between the patient's failure to understand the significance of his symptoms, and the savage's ignorance of the origin of his magic rites. The therapeutic significance of the hypnoidal state lies not only in its property of releasing the unconscious, but also in representing a primitive rest state. There is some discussion of the mechanism of dissociation; inhibitions become abnormally intense, dissociating a part of the individual's energy into the unconscious. "The creditors' claims cannot be satisfied, and the individual goes into insolvency in spite of the riches of which he is the owner but not the master." The hypnoidal state helps to reach these inaccessible stores of reserve energy. Some detachment of the book from the main current of psychopathological thought is indicated by the fact that, setting forth the ideas above outlined, its index does not contain the name of Freud.

Report from the Department of Pathology and the Department of Clinical Psychiatry, Central Indiana Hospital for the Insane, 1913-1914 and 1914-1915. Volume VI. (*Fort Wayne Printing Company, 1916.*)

For a number of years Dr. Edenharter has published these reports detailing the work of instruction in psychiatry, anatomy, pathology, etc., by members of the hospital staff and of the medical school of the University of Indiana which uses the hospital as a teaching unit. These courses are given to both the junior and senior classes and seem to be well arranged. The courses are also open to physicians. The first part of the book is given over to a statement by Dr. Edenharter of the aims, results, and plans, which have made a teaching hospital of what might easily have become an asylum for the chronic insane.

This is followed by a summary by Dr. Bahr, the clinical psychiater, of work done in the department of clinical psychiatry, which is the reception hospital of the institution, from October 1, 1913, to September 30, 1914, included in this are several papers read before medical societies.

Dr. Potter reports on the pathological work of the same period.

Part Two contains the reports of the same gentlemen for the period October 1, 1914, to September 30, 1915.

Naturally, the book contains some statistical matter, but this has been reduced to a minimum, and does not make tiresome reading. Some of the papers are of great interest and the whole report will well repay perusal.

W. R. D.

The Kingdom of the Mind. How to Promote Intelligent Living and Avert Mental Disaster. By JAMES MORTIMER KENISTON, M. D., formerly of the Medical Staff of the Connecticut Hospital for Insane. (*New York and London: G. P. Putnams' Sons, 1916.*)

Dr. Keniston has presented to his readers a book which can be easily read, its points readily assimilated and retained and its teachings in many respects followed without serious difficulty by those who are in earnest to accomplish those things the book is intended to promote.

Long years of intimate and sympathetic contact with the mentally disordered has given him an insight into many of the things which do not tend to intelligent living and which, instead of averting, invite mental disaster.

In the second chapter, which follows a brief introduction, the author discusses the body, calls attention to the necessity of a sound body as a prerequisite to a sound mind, and in simple yet direct terms advises the care of the body in all its parts. Following this chapter is one upon "The Kingdom of the Mind." In this chapter Dr. Keniston emphasizes the dignity of the mind and the importance of guarding the boundaries of its "Kingdom," of enlarging its borders in a regular and orderly manner of conducting its internal affairs without dissension, with singleness of purpose, with one standard of conduct toward all. He indulges here and elsewhere in the book in a homily with mental righteousness as his text, righteousness, having its old meaning "rightwiseness." With Matthew Arnold he indulges in speculation and queries as to how the mind may be rightened.

> "We shut our eyes and muse
> How our own minds are made,
> What springs of thought they use,
> How righten'd, how betray'd."

He indulges, however, in no metaphysical speculation, propounds no theories to confuse and bewilder his readers.

On the contrary in a quiet and most entertaining manner he leads him on from chapter to chapter, interspersing his text with apt quotation or illustrative tale.

In a few lines on page 71 he tells how judgment may be modified "by inadequate mental, moral and physical development; by superstitions; by political, religious and social convictions; by self-interest and prejudices; by lack of emotional control; by anger, jealousy, envy, self-conceit, narrowness; by sudden impulses and in great crises."

He refers to the effects of the "crowd" upon our judgment and its deep and sometimes terrible effect in over-throwing our calmer judgment.

The chapters entitled "Care of the Body," and "Care of the Mind" should be read by all workers in the field of mental hygiene, not that we suggest that they cover the subject, which is far from the author's claim, but that they present in simple terms without the introduction of fads and

rules of conduct a basis for suggestive work, applicable to a varied class of cases.

We congratulate Dr. Keniston upon the first product of the leisure which has come to him in his retirement, and that he has retained the spirit of work and service, which characterized his hospital days. Clearly he does not propose to permit his Kingdom of the Mind to lie fallow.

Abstracts and Extracts.

DEARBORN, W. F., ANDERSON, J. E., and CHRISTIANSEN, A. O.: *Form-Board and Construction Tests of Mental Ability.* (Journal of Educational Psychology, Vol. VII, 1916, pp. 445-459.)

Tests are described of varying difficulty of performance, ultimately to form part of a graded series. They are especially useful for occasions where the language factor is to be avoided. The tests described are a color-form test, five essentially form-board tests, a performance test and a construction test. In the color-form test are used sixteen blocks of four different geometrical forms, one each of which is colored red, blue, green and yellow. The subject must first pick out all blocks of the same shape as indicated by the examiner. Then he is to pick out all blocks that correspond in color. In one case he must disregard color and attend to form, in the other disregard form and attend to color. Results are given for twenty normal cases, showing an increase of ability with age.

More difficult types of form-boards are devised for use with higher grade cases than those reached by the earlier forms of this test. Blocks used in earlier form-boards were recut so that two or more pieces had to be fitted together to fill the space. Again certain blocks were so placed in the depressions that the subject had to shift some of the blocks already present and complete the depression with other blocks. The reconstruction puzzle is a board containing eight irregular depressions and three blocks which may be combined in different ways to fill each of them. Tables are given showing the increase of ability with age, the steps being more variable than with the color-form test or the simple form-board. A "block" test of similar type is quoted which presents four problems of increasing difficulty. The problems are to make certain rearrangements in the fewest possible moves. A test possessing considerable advantages from the standpoint of holding the subject's attention is the chair construction test in which a number of pieces must be fitted together to form "a piece of furniture." The whole contribution describes a very useful series of non-linguistic tests of greater difficulty than has hitherto been available.

YOUNG, HERMAN H.: *The Witmer Form-board.* (The Psychological Clinic, 1916, Vol. X, pp. 93-112.)

The form-board used is of a modified type and illustrated, with detailed description. Sylvester's work is reviewed. A considerable effort at standard conditions is made; the only variable is the height of the table on

which the board is placed, this being suited to the convenience of the subject. The standard position of the board must be carefully maintained. The whole experimental routine is quite minutely described. Three trials are made according to the result of Sylvester's work. Tables are given showing the distribution of the shortest trial time in records of 1474 boys and of 1375 girls. There are given the time in seconds at each age (per half year), the number of failures per age and the number of subjects per age in the distribution. Other tables present the results from different angles. Reference to the tables and charts indicates the increase in form-board ability at least to the age of 15, that half yearly norms are necessary for standardization at least up to the age of 13, and that boys are on the average superior to girls in the test.

YOUNG, HERMAN H.: *Physical and Mental Factors Involved in the Form-board Test.* (The Psychological Clinic, 1916, Vol. X, pp. 149-168.)

The numerous factors involved in the form-board solutions place it at the head of the list of clinical tests. A review is given of the mental faculties which it has been used to measure. It has not been catalogued as a test of some particular mental function, which shows the growing recognition of the complexity of the mental functions involved in the performance of quite simple tests. The desire to establish norms for comparative purposes has been an obstacle to the rapid analytical development of tests. An attempt is made here to include in one chart many of the elementary factors involved in form-board ability. The usual assumption is that in a test we secure the best possible results from the subject and that he is revealing his innate powers. Fallacies in this assumption are pointed out, and a concept is formulated of *epideictic* capacity or performance on the particular occasion, as contrasted with *hyparctic* capacity; or the capacity which by considerable experience may be regarded to represent the innate ability. These concepts are developed at some length and are worth attention from the standpoint of careful formulation.

In the test it is impossible to predict what factors will be tested, and the number of possible combinations for success or failure is indefinitely great. Given the qualities enumerated on the chart, the degree to which these were manifested is estimated on a quantitative scale, which may be refined to any desirable limit. The test is discussed in relation to visual, auditory and kinæsthetic sensibility, energy, control of response and its complexity, attention and interest. Other factors of which an impression can be gained are imagination, understanding, and planfulness. Adaptability, assurance, spirit of competition, poise, tractability are included. Sample records are given for two subjects and discussed in sufficient detail to make them intelligible. If we note carefully and evaluate correctly the various factors involved and exhibited, we have evidence which should enable us to make fairly reliable inferences concerning ability and conformity. We must, however, not lose sight of the fact that such rating is merely an estimation and not a measurement. The form-board should

give sufficient indication of the subject's weaknesses and capacities to enables the examiner to proceed directly to the specific tests necessary for confirmation. Its usefulness as a test varies directly as the examiner's ability to interpret and evaluate performances. It is, therefore, highly important that the test be kept constantly in mind as a device for learning something about the subject's ability and conformity.

BRONNER, AUGUSTA F.: *"Construction Test A" of the Healy-Fernald Series.* (The Psychological Clinic, 1916, Vol. X, pp. 33-40.)

These remarks are elicited by the study of Bruckner and King in the February number of the *Clinic*. Objection is made to the term, "Fernald Form-board" on the ground that first, Healy and Fernald give credit to Professor Freeman for its origin, and that it is not a form-board testing the perception of form but rather, as its correct name suggests, a test for perceiving the relationship of form. The statement that the blocks can be correctly placed in eight different ways is not intelligible to the author, as it is intended that there shall be but one way in which the blocks can be placed correctly. Attention is called to the need of accuracy in the dimensions of the parts. The experience of the author's laboratory throws doubt upon the test's value as an age test, and indicates it to be better calculated for light on ability along certain lines regardless of age. Among normal boys of 11 to 17 it appears that in all ages some individuals fail at this test within the time limit of five minutes. The median time does not decrease steadily with increasing age, neither does the median number of moves required for solution. The variability in the scores for both time and number of moves does not decrease with increasing age. Tests for girls present the same general features except that they are slightly better throughout. Among the feeble-minded the test is not performed correctly by any one lower than a moron, but a large percentage of the moron group succeed with it. Success among the feeble-minded does not depend upon chronological age so that world experience does not seem to be a determining factor. A statistical table presents the data from which these and other conclusions are drawn.

BONSER, FREDERICK G.: *The Selective Significance of Reasoning Ability Tests.* (The Journal of Educational Psychology, 1916, Vol. VII, pp. 187-201.)

This is a follow-up study of reasoning tests made nine years previously in the IV, V, and VI school grades. The full school record of those finishing the VIII grade and those entering high school have been secured, excluding only those moving away. It was hoped to follow up children after leaving school with regard to occupational success or failure; correspondence did not accomplish this. Of 225 brief blanks sent out with return postage 15 were returned.

Tables are presented demonstrating the selective force in the school system on the basis of ability measured by the tests. Of boys graduating

from high school some 14% come from the lowest quartile in ability and 49% from the highest quartile. Of those leaving school before finishing the VIII grade, 28% are from the lowest quartile, and 12% from the highest. The median ability by the tests of the group of high school girls not graduating is 146, while that of the VIII grade graduating group not entering high school is 156.5. The explanation suggests itself that for girls entering high school is not so much a matter of ability as it is for boys, but more one of "going with the crowd," and may be done by girls of relatively low ability who later fail. A significant feature of the results is the evidence that the high school tends to select students of a very definite mental type and one which may be identified by tests of reasoning ability three or four years before the beginning of the high school period. Regarding individual correlations, it appears that the kind of ability measured by the tests is more appropriately found in children under 11 years, a majority of whom are below the VI grade. It was previously observed that the validity of the tests diminishes somewhat above the V grade. The tests may well be given early in the IV or V grade, to be of most value in educational guidance. Regarding relative variability of the sexes "the question arises whether the conclusion that boys are more variable than girls may not be derived from a failure to give adequate weight to cases of extremes, a conclusion true enough for selected groups at both ends of the scale, but invalid for the groups clustering about the median in a natural distribution." A table is given showing the chances in 100 based on the performance of the 754 children of reaching various school attainments according to the quartile in which they are found. Thus the chances of the pupils in the highest quartile are better than those of the lowest quartile as follows: Of finishing the VIII grade, boys 1.7 times, girls 1.2 times; of entering high school, boys 2.4, girls 1.7; of finishing high school, boys 3.5, girls 4.1. The study is felt to give much encouragement in the problem of educational guidance.

Half-Yearly Summary.

CALIFORNIA.—At a meeting held October 20, 1916, in San Francisco, of the heads of the state hospitals, state officials, and physicians in San Francisco, plans were made for the establishment of a state psychopathic hospital and for an industrial farm for drug addicts, alcoholics and paroled patients. A committee consisting of Dr. George E. Bright, San Francisco; Dr. Fred W. Hatch, superintendent of Napa State Hospital; Dr. Herbert C. Moffit, and Dr. Charles D. McGettigan, both of San Francisco, was appointed to prepare a bill to be presented to the legislature providing for the establishment of these places. Later, the cooperation of the State Board of Health and of the California Society for Mental Hygiene was secured and a bill was presented to the legislature which appropriated $500,000 for the establishment of a state psychopathic hospital to be located near the University of California Medical School, to be governed by the university regents, and to have the professor of psychiatry as director ex officio. The hospital was to provide intensive care and study of cases for short periods and was to have a research laboratory. Another bill provided for the appropriation of $250,000 for the establishment of the colony in southern California. We understand that both of these bills failed to pass.

The California Society for Mental Hygiene recently elected the following as officers: President, Dr. George E. Bright; vice-presidents, Drs. Robert L. Richards, Lillian Martin and Fred W. Hatch; secretary, Miss Julia Green; treasurer, Mr. Knox Maddox.

—*Sonoma State Home, Eldridge.*—This is a state home for the care and training of feeble-minded and epileptics who are not insane. It is not an institution for the insane. There are 1233 inmates of whom 320 are also epileptic.

This is the only state institution in California for the care of the feeble-minded. There is a bill before the present legislature to establish one in the southern part of California.

CONNECTICUT.—*Connecticut Hospital for the Insane, Middletown.*—A two-story brick addition to center cottage has been constructed with hospital labor. The addition houses bath rooms and toilet sections, providing more adequate space for the purpose than formerly, and removing the sections from immediate contact with the wards.

The frame work for a new greenhouse was purchased and erected by hospital labor, providing much needed additional space for the work of the florist.

A cement floor has been laid in the old coach barn, rendering its use available as a garage. The second floor has been altered so as to provide rooms for ten married couple, affording needed additional space for employees' quarters.

The porches on the north wing of the main building have been enclosed with glass, and thus converted into sun parlors. With the installation of heat, they can be used throughout the winter, thus materially adding to the day room space of the wards.

A modern dish-washing machine has been installed in the scullery connected with the congregate dining-room, and has resulted in economy not only in labor, but in reducing dish breakage.

On October 1, 1916, a eugenics field worker, from the Eugenics Record Office, Cold Spring Harbor, L. I., N. Y., reported for duty, and has since been engaged in eugenics field work.

On October 2, a masseuse reported for duty, her services being utilized not only in administering massage to patients, but in teaching the subject to the members of the Nurses' Training School.

On October 17, a special teacher for re-educational work reported for duty, and under her direction a day school has been established, wherein kindergarten methods are employed and rudimentary school work done among deteriorated dementia præcox cases. The same teacher likewise has direction of a physical training class, wherein calisthenics, wand and dumb-bell drills and folk dancing are taught.

On December 6 and 7, a sale was held in the amusement hall of the products of the work of the special occupational classes, which was so largely attended that it was impossible to supply the wants of all would-be purchasers. Over five hundred dollars was realized, such sum being sufficient to not only cover the expense of all material purchased for the classes, but to provide special Christmas gifts for the members of the classes.

District of Columbia.—By an act of July 1, 1916, the Government Hospital for the Insane was officially renamed St. Elizabeth's Hospital. This was a popular name which had its origin during the Civil War and was derived from the tract of land on which the hospital stands.

Illinois.—The Illinois State Hospital Medical Association held its annual meeting at Peoria State Hospital, October 26, 1916. Dr. Charles Burr Caldwell, assistant superintendent of the hospital was the presiding officer. A meeting was also held at the Chicago State Hospital in January.

By the aid of a grant from the Rockefeller Foundation the criminal court of Chicago is to have a psychopathic institute which is to be an extension of the Juvenile Psychopathic Institute. Dr. Herman Adler will have supervision of the work as will Judge Hugo Pam, representing the criminal court judges.

Indiana.—A commission was appointed about a year ago by Governor Ralston to study the problem of the mental defectives in this state, and has

recently made its report. In this it is stated that over one thousand persons lack proper treatment because there are not sufficient accommodations in the state hospitals. Many recommendations are made to remedy this state of affairs, first, that new buildings be erected on the grounds of the present hospitals, or if possible, it will be better to form farm colonies for the same. The Indiana Village for Epileptics at New Castle has at present a capacity for but 305 patients. It is recommended that the capacity be increased to 1200, with especial reference to the accommodations for women. In regard to incipient or acute cases it is recommended that all general hospitals shall provide wards for observation and detention pending commitment to a state hospital, that no case shall be placed in jail, and that a law be enacted authorizing voluntary admissions. The law regarding the commitment of the feeble-minded should be amended so as to permit the admission of feeble-minded male adults as is now provided for feeble-minded women. The school colony for feeble-minded at Fort Wayne should be enlarged by the establishment of a colony of not less than a thousand acres in the southern part of the state. Separate school rooms for mentally retarded children, and the mental examination of all school children are also recommended.

The state board of health also advocates increased provision for the care of mental defectives, and recommends the establishment of farm colonies as has already been done near the Eastern State Hospital at Richmond.

IOWA.—On December 5, 1916, Dr. Albert M. Barrett, director of the State Psychopathic Hospital at the University of Michigan at Ann Arbor, read a paper before the executive heads of the Iowa Institutions, in which he urged the establishment of a psychopathic hospital at the State University at Iowa City. A movement was inaugurated to ask the legislature for an appropriation for this purpose.

KENTUCKY.—*Central State Hospital, Lakeland.*—The new general kitchen is completed with the exception of equipment, which is intended to consist of the most modern electrical ovens and conveniences. When finished it will be, in the opinion of the architects, the best kitchen in the state of Kentucky.

LOUISIANA.—*Louisiana Hospital for Insane, Pineville.*—Nothing new in the way of treatment for the insane is being pursued at this hospital, but the treatment inaugurated eight years ago of finding occupation of some kind for every patient able to do anything is being enlarged so as to find some sort of employment for both men and women. This is done as much as possible in the open air, farming and gardening affording the means of employment for all male patients, and flower and plant culture, basket making, sewing and laundry for the women. The hospital is now erecting a two-story building with all necessary appliances and equipment to install an up-to-date pathological laboratory, second to none in the country. It is

proposed to do laboratory work, not only for the hospital, but for the profession at large.

MAINE.—*Bangor State Hospital, Bangor.*—The congregate dining-room has been completed and occupied within the past year. This is a handsome room 70 by 130 feet, well lighted and ventilated and with a seating capacity for 580 patients. It occupies the entire second floor of a new building, situated in the center of the hospital group and adjoining the kitchen building. It is reached from the wards by two connecting corridors opening on wards C-2 and E-2. The first floor of this building contains an employees' dining-room 32 by 50 feet and a room of similar size for a men's industrial shop. The remaining half of this floor and the basement are used for a general store room.

A two-story sun parlor has been constructed off building E, corresponding to that constructed last year off building C.

MARYLAND.—The Mental Hygiene Society of Maryland held a meeting in Baltimore, January 24, 1917, at which addresses were made by Dr. Adolf Meyer, director of the Henry Phipps Psychiatric Clinic; Mr. Leon Faulkner, superintendent of the Maryland School for Boys; and Mr. G. H. Reeves, assistant superintendent of schools.

Through the efforts of Dr. Arthur P. Herring, secretary to the State Lunacy Commission, an exhibit and sale was organized during November at which articles made by patients at Spring Grove, Crownsville, Springfield, Eastern Shore, Rosewood State Training School and the City Detention Hospital were sold at satisfactory prices. During the three weeks that the sale was in progress nearly $1300 was realized, less expenses of about $300. Following this efforts have been made to organize a permanent hospitals' exchange at which articles made by the physically or mentally handicapped will be on sale. It is believed that this will solve the question of the disposal of articles which is usually a somewhat difficult matter.

Governor Harrington has announced his intention of appointing a commission to study causes of mental defectiveness and to suggest means of prevention. At the present time the City Detention Hospital of Baltimore is overcrowded due chiefly to the failure of the last legislature to make an appropriation to complete and equip the hospital for acute cases that was erected at Spring Grove.

MASSACHUSETTS.—In memory of the late Judge Baker of the Juvenile Court, Boston, there has been created the Harvey H. Baker Foundation to aid the Juvenile Court in making mental examinations of those brought before it. Dr. William Healy of Chicago, has been appointed director.

—*Gardner State Colony, East Gardner.*—A small field stone building built by patients to accommodate ten disturbed women is being completed. This is a new departure for so small a number. It is the first unit for the dis-

turbed. Units of this size are planned so that patients may get real individual treatment, instead of herding which results in building for one hundred or more.

There are now 817 patients and over 96 per cent of these are working a part or the whole of each day of the week. Pottery has been done for some time in the women's industrial building, but has now been removed to the hospital building as an industry for convalescent sick patients.

Motion picture entertainments are held each Sunday night for the reason that stopping occupation for the patients on Saturday noon makes a long unoccupied period for most of them before Monday morning. They become restless, and have nothing much to look forward to on Sunday except religious services. Motion pictures have already been successful in this respect as the patients apparently look forward with much pleasure to these entertainments on Sunday night, and do not become so restless and uneasy as previously.

—*Westborough State Hospital, Westborough.*—On December 7, 1916, this hospital celebrated the thirtieth anniversary of its opening. Dr. N. Emmons Paine, chairman of the Board of Trustees, and first superintendent of the hospital, presided at the morning session, which was devoted largely to personal retrospection and histories of the growth of the institution.

In the afternoon Dr. H. O. Spalding, present superintendent of the hospital presided at a session devoted largely to the presentation of papers of scientific and medical interest.

The following program was presented:

11 A. M.

Dr. N. Emmons Paine, Chairman Board of Trustees, Presiding.

1. Greetings. Historical Retrospect. Dr. N. Emmons Paine, formerly superintendent, Westborough State Hospital.
2. Some Early Experiences as a Member of the Hospital Staff. Dr. Amos J. Givens, first appointee as assistant physician, Westborough State Hospital.
3. The Inauguration of the Acute Service in 1898. Dr. Henry I. Klopp, formerly assistant superintendent and first physician-in-charge of this service.
4. The Consulting Board of Physicians and the Hospital. Dr. John L. Coffin, member of Consulting Board; formerly chairman, Board of Trustees.
5. Boston University Medical School and Westborough State Hospital. Dr. John P. Sutherland, member Consulting Board and dean, Boston University Medical School.
6. Former Trustees of the Hospital. Miss Eliza T. Durfee, trustee from 1888-1915.
7. Three Minute Remarks by Former Members of the Medical Staff.

8. Response for the Present Organization of the Hospital. Dr. H. O. Spalding, superintendent, Westborough State Hospital.

2 P. M.

Dr. H. O. Spalding, Superintendent, Presiding.

1. Observations on the Alcoholic Psychoses. H. O. Spalding, M. D., superintendent, Westborough State Hospital.
2. Varieties in the Structure of the Cerebral Cortex in Man. E. Lindon Mellus, M. D., formerly pathologist, Westborough State Hospital.
3. Does a Formal Education Alter the Course and Outcome of Phychoses? (A study of academically educated persons admitted to Westborough State Hospital during the past ten years.) M. M. Jordan, M. D., assistant superintendent, and Alberta S. Guibord, M. D., formerly assistant physician, Westborough State Hospital.
4. Adrenalin Mydriasis as a Somatic Symptom of Dementia Præcox and Organic Disease of the Brain. S. C. Fuller, M. D., pathologist and clinical director, and R. M. Chambers, assistant physician, Westborough State Hospital.
5. Multiple Sarcomatous Growths of the Cerebrum, Mid-Brain and Medulla with Comparatively Few and Insignificant Mental and Neurological Symptoms until Late in the Course of the Affection. Frank C. Richardson, M. D., director, Evans Memorial for Clinical Research, and S. C. Fuller, M. D.
6. Sensory Changes in a Case of Friedreich's Ataxia. H. B. Ballou, M. D., senior assistant physician, Westborough State Hospital.
7. The Treatment of General Paresis. S. C. Fuller, M. D., and R. M. Chambers, M. D.
8. The Simultaneous Occurrence of the Lesions of Paresis and Multiple Sclerosis in the Same Subject. S. C. Fuller, M. D.
9. A Study of Mesoblastic Connective Tissue Proliferation in the Cortex of Cases Dying of Paresis. S. C. Fuller, M. D.
10. The Cellular Neuroglia of the Cerebral Cortex in Paresis and Senile Dementia as Displayed by the New Chloride of Gold Method of Ramon y Cajal. S. C. Fuller, M. D.
11. Multinucleation of the Purkinje Cells of the Cerebellum, with Reference to Their Diagnostic Value for the Hereditary and Acquired Forms of Paresis. (A critical study of the Westborough Material and an Analysis of Published Cases.) S. C. Fuller, M. D., and Emily Robinson, assistant in the laboratory, Westborough State Hospital.
12. Obscure and Familiar Syphilis. C. C. Burlingame, M. D., formerly assistant physician, Westborough State Hospital.
13. Serum Changes in Relation to Epileptic Attacks. P. G. Weston, M. D., formerly investigator in pathological laboratories, Westborough State Hospital.
14. The Results of Certain Intelligence Tests upon Committed Alcoholics and Drug Habitués. Eleanor A. McC. Gamble, professor psychology, Wellesley College, special investigator, Westborough State Hospital.

15. Study of the Results of Diversional Occupation in the Insane. H. I. Klopp, M. D., formerly assistant superintendent, Westborough State Hospital.
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MICHIGAN.—*Kalamazoo State Hospital, Kalamazoo.*—Work in the institution during the past winter has been interfered with to a considerable extent by the prevalence of scarlet fever. A few serious cases developed with the death of two employees and one patient. The balance of the cases were rather mild in type.

Mental out clinics have been established in the four largest cities in the hospital district and are held monthly by the medical staff under the auspices of the juvenile courts assisted by various charitable organizations with their nursing forces, the latter conducting follow-up work. These clinics have been largely attended from the first, have been exceedingly popular with the public and are awakening wide-spread interest.

Special investigation as to the prevalence of congenital syphilis in the families of paretics is being conducted not only in the institution but in the out-clinics with very interesting results which will be published later. The treatment of paretics and cases of cerebral syphilis by the use of neo-salvarsan, salvarsanized serum, and mercurialized serum in conjunction with regular mixed treatment is being conducted by members of the staff. Frequent serological examinations are made during the course of treatment. While it is too early to furnish tabulated results, sufficient improvement in clinical symptoms and laboratory findings has occurred to encourage continuation of these treatments. Aside from this there has been nothing new undertaken in the line of therapy.

There have been completed in the last year a new industrial building, a fire-proof structure, 50 by 100 feet, two-story and basement, in which are located the tailor shop, sewing room, looms, arts and crafts department, repair and paint shop, rooms for making furniture, etc.; also, a home for men nurses and married couples which is a fire-proof structure, three-story and basement. The basement contains an assembly room, smoking room, laundry, kitchen, and dining-room. The three floors above contain reception rooms and sleeping apartments for the employees; large bath rooms are being rather elegantly fitted up with tile walls, porcelain tubs, shower

baths, etc. The building will be ready for occupancy about the first of May. All of the furniture for this building excepting the bed steads is being made by patients in the industrial building described above.

NEW JERSEY.—*New Jersey State Hospital at Morris Plains.*—The occupation provided for men patients in the industrial division has been followed by such satisfactory results that special efforts have been put forth in the last few months to provide diversional occupation for women patients. A floor of the industrial building has been turned over to their use. Instruction is given in bookbinding, weaving of carpets and tapestry, knitting, embroidery, crocheting, raffia, and reed work, particularly basketry. These steps have been followed by rapid progress and numerous patients have been induced to participate with extremely beneficial results.

The patients' interest in *The Psychogram* increases. Those engaged in its production show pleasure in their work. Patients with literary trend contribute numerous articles. The circulation is gradually increasing. It would show more fraternalism in hospital work if other institutions could be induced to subscribe to this paper. At present there are no more than a half dozen physicians in institutional work on the mailing list.

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During the past six months there has been little new construction begun. The mortuary building, erected by the labor of patients under competent supervision, has progressed to the limit of the appropriation provided for the purpose.

The addition to the fire house has been completed, and provides 30 additional sleeping rooms and an enlarged recreation and club room.

A new food elevator has been begun at the dormitory building to make easier the serving of food to the patients who use the recently completed dining-rooms.

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Rockefeller Foundation has contributed $34,000 towards surveys which have been completed in California, Colorado, Connecticut, Georgia, Louisiana, Pennsylvania, South Carolina, Tennessee, Texas and Wisconsin and are under way in Chicago and New York. The first number of the committee's quarterly, the *Journal of Mental Hygiene,* appeared in January. The following were elected as officers: President, Dr. Lewellys F. Barker, Baltimore; vice-presidents, Prof. Charles W. Eliot, Boston, and Dr. William H. Welch, Baltimore; treasurer, Mr. Otto T. Bannard, New York; medical director, Dr. Thomas W. Salmon, New York; assistant medical director, Dr. Frankwood E. Williams, Boston; and secretary, Mr. Clifford W. Beers, New York. It was reported that 16 state societies for mental hygiene have been organized.

—*Bloomingdale Hospital, White Plains.*—During November a new occupation building for men was opened which is one of the most attractive so far constructed. It is of one story, built of brick, the exterior being red, and the interior yellow. The floors are of concrete. It is arranged in the shape of a U with the noisy occupations such as carpentry and forge work in one end and the quiet occupations such as basketry and weaving at the most remote point. Cement work, printing, jewelry and other fine metal work are provided for in separate rooms.

—*Binghamton State Hospital, Binghamton.*—The new building for the accommodation of 300 women patients has been named by the Board of Managers "Wagner Hall." Painting of the interior has been completed and, with the exception of some minor details, the building is ready for occupancy. It is expected that 300 women will be transferred from the metropolitan district to this building in the near future.

On December 7, 1916, proposals were received by the State Hospital Commission for a new coal trestle to replace the old one condemned on account of weakness, and a contract has been awarded for its construction in the sum of $8450. Proposals were also received by the Commission March 20, 1917, for additions to the laundry and its equipment, aggregating nearly $35,000; the appropriation is but $32,000, so it is expected that a contract will be awarded with the omission of part of the equipment, with the expectation of securing an additional appropriation next year.

The hospital teamsters have for many years occupied a small building where 12 men slept in two dormitories; these dormitories have recently been divided into eight rooms and a bath room, so that these employees in future will have much more comfortable accommodations.

New plumbing has been installed in the toilet sections of wards 7, 11 and 12, to replace old plumbing which had become dilapidated and unsanitary, and the walls of the dining-rooms, kitchen and several of the wards in Broadmoor, have been improved with a new coating of paint.

Classes in physical culture were resumed last fall under the direction of a capable teacher, Miss Kathryn Niles. Miss Niles has received special train-

ing for this work and is meeting with gratifying success. Two classes of men receive instruction daily in the forenoon and two classes of women in the afternoon.

On March 22, 1917, a transfer of 40 women patients was received from the Central Islip State Hospital, and a similar transfer of men to the number of 60 will soon be made from the Manhattan State Hospital. Although the wards have been for a long time past crowded, conditions in the metropolitan hospitals are still worse and so relief for them has been sought by sending patients up the state wherever additional room could be made for them.

—*Gowanda State Homeopathic Hospital, Gowanda.*—Sixty-five feet of the smokestack from the power-house was replaced with new stack.

Material has been purchased for a tile silo, to replace the old wood silos.

A new tile floor has been laid in the bakery.

New "James Way" stalls and water buckets have been provided for the dairy barns, and wagon scales have been purchased for the farm.

The cement floor in the boiler room at the power-house has been replaced with brick.

Many repairs have been made to the green house and hennery.

A new cement block milk house has been constructed with the material taken from the old fire house.

The pathological laboratory and mortuary, for which the legislature appropriated $10,000, is under construction.

Early in the present year there was an outbreak of typhoid fever, there being 16 cases in all.

—*Hudson River State Hospital, Poughkeepsie.*—During the period covered by this report there have been no new buildings or extensive alterations to the plant.

A third out-patient department has been started in Mt. Vernon, N. Y. The clinic was inaugurated by a public meeting the evening before opening. The clinic is conducted by one of the physicians of the hospital at 2 p. m. on the second Wednesday of each month in the Mt. Vernon Hospital.

An exhibit of the work done by patients of this hospital in connection with the Annual Charities Conference held in the city of Poughkeepsie attracted favorable attention.

The Modern Care of the Insane is a title of motion pictures made by a representative of one of the large motion picture companies, and it is planned to show the pictures at various places throughout the country as part of a weekly educational serial.

Because of the industrial conditions the hospital has great difficulty in securing and keeping a sufficient number of desirable attendants.

—*Kings Park State Hospital, Kings Park, Long Island.*—The additions to groups 2 and 3 are completed, with the exception of about one hundred

minor items which will have to be corrected by the general contractor, such as are usual in finishing buildings.

The appropriation for equipping the buildings has been approved by the legislature, and it is expected that the funds will be available during the month of March, 1917.

On February 28, 1917, bids were received by the State Hospital Commission for constructing a new employees' home, for which there was an appropriation of $100,000. The total amount of the bids received was $90,901.

Bids were received for a refrigerating plant at Group 2 kitchen, but as the amount of the bids was in excess of the appropriation the contract could not be let. Arrangements, however, are under way through which it is hoped the plant can be installed within the appropriation.

Two new wells have been drilled and will be connected with the water system as soon as the weather will permit in the spring.

Due to the increase of the census of the institution the sewage disposal plant has become inadequate and, on the recommendation of the State Board of Health, it is proposed to ask the legislature of 1917 to make an appropriation to increase the capacity of the plant.

It is expected that a mental hygiene and out-patient clinic is to be soon established in Nassau County, at Mineola, Long Island, through the hearty cooperation of the Nassau County Association, the National Committee for Mental Hygiene, and the Committee for Mental Hygiene of the State Charities Aid Association.

The work of the clinic at the Williamsburg Hospital, Brooklyn, is progressing very satisfactorily.

The State Hospital Commission has approved estimates for five pianos, five phonographs, one hundred and seventy-five dollars worth of records, six bowling balls, and one punching bag, which will supply deficiencies in the line of amusement for patients.

Dr. A. J. Rosanoff, first assistant physician, Dr. Inez A. Bentley, woman physician, and Dr. Helena B. Pierson, assistant physician, have returned from their leave of absence, the Nassau County Survey of Mental Disorders on which they were engaged having been completed. The report of the Survey is in preparation.

—*St. Lawrence State Hospital, Ogdensburg.*—On December 5 and 6 the annual bazaar was held at the hospital. At this bazaar are placed on sale the articles made during the year, and the proceeds from the sale are added to the amusement fund of the hospital.

On December 11, Mrs. Annie E. Daniels presented to the hospital a crayon portrait of her husband, the late Major William H. Daniels, who for many years was connected with the hospital and at one time was president of the Board of Managers.

—*Willard State Hospital, Willard.*—The semi-annual meeting of the Committee on Mental Hygiene and After Care met at the hospital October 6,

1916. One session was devoted to reports from the members of the committee, and at the afternoon meeting Mr. George A. Hastings, secretary of the State Committee on Mental Hygiene, gave a review of the progress made in the work of psychiatric dispensaries and social service at the various state hospitals in New York.

The Seneca County Medical Society held its semi-annual meeting at the hospital October 12, 1916, when a paper was read by Dr. John M. Swan of Rochester, on "Cardiac Irregularities." Dr. Wm. H. Montgomery of the hospital staff, read a paper on "Paresis."

The level of Seneca Lake has receded several feet as the result of barge canal construction. This leaves an insufficient depth of water in the boathouse where the hospital steamer is kept. A new boathouse will have to be built, for which purpose an item of $3000 appears in the budget for the coming year.

It has been necessary to reconstruct a considerable part of the foundation walls at the group of cottages known as "Sunnycroft," owing to the development of marked evidences of settling and faulty construction.

Fire was discovered in the basement, near the kitchen, at "The Hermitage" (men's infirmary) about four o'clock on the morning of March 15, and gained such headway that the floor of the dayroom overhead was burned through, and the entire north wing became densely filled with smoke. The dormitories contained about one hundred patients of the feeble class, and most of them had to be carried out. All of the patients were removed to a place of safety without injury or accident. The fire department responded promptly to the alarm and very soon had several streams of water playing upon the fire, which was quickly brought under control. Damage was done to the extent of about $500.

Fire escapes have been erected at the administration building, employees' home, and the center buildings occupied by officers and employees at five of the cottage groups.

The interior of the amusement hall has recently been re-decorated.

—*The Craig Colony for Epileptics, Sonyea.*—In the colony laboratory studies have been made regarding the existence of the alleged bacillus epilepticus as claimed to have been found by Dr. C. A. L. Reed of Cincinnati, Ohio. Our judgment and experience make it impossible for us to regard epilepsy as an infectious disease, yet the vogue given to this idea by recent publications has made it necessary that the bacteriology of epilepsy as far as bacteræmia is concerned, should be worked over. Reed's recent retraction scarcely lessens this necessity, since the bacteriological conception of epilepsy has gained a deep hold in many quarters. Our cultures were taken with considerable attention to detail in hopes of eliminating contaminations. Our results from 145 cultures were all negative, that is, in no instance did we find a typical Reed form. The examination of intestinal contents was positive in a few instances, but this is to be discounted because of the known presence of spore-formers in the intestinal tract.

Owing to the failure of the colony to receive appropriations for progressive development applications for admission continue to greatly exceed vacancies which occur.

Work is under way for the erection of a cold storage plant in connection with the colony store. Contract has been awarded for the construction of two one-story dormitories, each accommodating 60 male patients to replace the bed space in the Letchworth House, a building condemned for use by patients. Contract has also been awarded to enlarge the colony's water softening and purifying plant, to such an extent as to so treat all water consumed by the institution.

OHIO.—*Columbus State Hospital, Columbus.*—Considerable new construction has been under way during the past year, practically all of which will be completed by June. Included in the above is a complete new power and heating plant, a dormitory-cottage for 140 patients and a pavilion for tubercular patients. The completion of these buildings will bring the capacity of the hospital up to about 2000 patients. After July 1, 1917, money for additional improvements will be available.

These will include complete hydrotherapeutic equipment for the acute wards on both the male and the female sides of the main building, the remodeling of the hydrotherapeutic apparatus at the Greer Hospital Cottage, and the construction of a series of industrial buildings. Rather extensive alterations in the main building are also projected in order to provide adequate quarters for the industrial departments for women and for school work.

The medical work of the hospital has been proceeding satisfactorily.

—*Massillon State Hospital, Massillon.*—The following new buildings are under construction:

Cottage No. 4, for men patients. This building is nearing completion. It will have a capacity for 100 patients, and is fire proof. It will be used for working patients, and has a dining-room in connection with the building.

The contract for the erection of a receiving cottage has been made. This cottage will care for both men and women patients—women downstairs and men upstairs. All new patients coming to the institution will be first sent to this cottage. There are four sound-proof rooms for the extremely excited. It will have an individual heating plant, kitchen and dining-room. There will be accommodations for the nurses and one physician in the building.

PENNSYLVANIA.—In the monthly bulletin of the Department of Public Health and Charities of Philadelphia for September, 1916, Dr. J. Allen Jackson, chief resident physician of the Philadelphia Hospital for the Insane, outlined a plan for the establishment of bureaus of mental hygiene as subdivisions of departments of health. His plan is very similar to that pursued by many psychiatric hospitals which parole patients to their homes

where they may resume a gainful occupation, on condition that they report regularly to the clinic of the hospital or to some designated physician. This plan has been carried out successfully by the Philadelphia Hospital, probably because before paroling a patient an investigation is made by a social worker to determine whether the new surroundings will be beneficial. Dr. Jackson proposes that various psychiatric centers be determined, and that physicians be appointed to them who shall have the same relation to the custodial institution that contagious disease inspectors have to hospitals for contagious diseases. It is believed that many advantages will result from such an arrangement.

—*Pennsylvania Hospital for the Insane, Philadelphia.*—By will of James Anspach of Philadelphia this hospital becomes the beneficiary of a contingent trust fund of $100,000.

—*Warren State Hospital, Warren.*—Besides the routine medical work of the hospital, various methods in the treatment of paresis have been followed with groups of patients. Paresis forms nearly 10 per cent of the annual admissions, though unfortunately most of the cases admitted are so far advanced at the time of admission that the possibility of securing the most favorable results of treatment are largely eliminated. Intensive treatment by the various methods suggested in recent years, intra-spinous, intravenous, and intra-muscular, etc., have been followed in groups of patients for the purpose of comparing results. In the near future a report will be made covering this research.

Aside from the regular routine work done in the laboratory some efforts at research investigation have been conducted. Methods for the preservation of reagents used in the Wassermann reaction and the length of time reagents may be prepared were determined. Complement and human blood in suspension were preserved unimpaired for 96 days; amboceptor, dried on paper, for seven years, and spinal fluid for 18 months.

The total quantity of spinal fluid in patients suffering from the different psychoses was determined. Cases of paresis and organic dementia showed an increase of fluid over that found in other psychoses. All fluids contained some cholesterol. Fluids from epileptics, cases of dementia præcox and organic dementia contained more cholesterol than those from cases of paresis, senile dementia, and manic-depressive psychosis.

Studies on the nature of the substance causing the gold sol curve in paresis and on some albumoses and peptones were made. The salts, copper sulphate reducing substance, and Wassermann reacting substance do not precipitate colloidal gold. The precipitating substance is dyalizable, destroyed by heat and precipitated by ammonium sulphate.

The sugar content of blood and spinal fluid were determined, and the ratio of spinal fluid sugar to blood sugar established. This ratio varies from 1 : 1.55 in the epilepsies to 1 : 1.72 in the cases of paresis. Individual differences were considerable, especially in the dementia præcox cases, but the

average for all cases of the different psychoses showed no considerable deviation from normal.

The pH concentration in the fluids from different psychoses was determined by the colorimetric method. The pH value varied from pH = 8.3 to pH = 7.9. The variation was practically the same in the fluids from all psychoses.

The various colorimetric methods for determining cholesterol were compared and the results published.

The properties of serum obtained from cases of epilepsy is being studied.

South Carolina.—*The State Hospital for the Insane, Columbia.*—For the past six months, the building operations connected with the remodeling of the hospital have been going on without interruption and much has been accomplished since the last report published in this journal.

Early in the year, the large central dining-room for white male patients was completed and occupied.

Another section of the main building has been remodeled for white male patients. In this, are included a first floor for the aged, infirm and hospital cases, there being a dining-room for those who are unable to walk to the congregate dining-room. Connected with this dining-room is a pantry and serving room. The second floor has been arranged for a reception ward, having a dormitory for about 12 beds, several single rooms, two continuous baths, a physician's office and examining room, a pantry and diet kitchen, and a large concrete porch. Above, provided with a dumb waiter for food and other supplies is a commodious ward which may be used for isolation purposes in the event of an epidemic of contagious disease.

The improvement in general conditions has had a markedly beneficial effect upon the welfare of the patients. The better hygienic surroundings and sanitary arrangements, the improved method of preparing and serving food, these and other factors have resulted in a striking reduction of the death rate. While there seems to have been a considerable reduction all over the state not only in the prevalence of but also the number of deaths from pellagra (which causes a large percentage of the deaths in this hospital), yet the admission rate of pellagra remains high while the death rate has been reduced much more in the hospital than in the state at large. The improvements, therefore must be ascribed in a large degree to the changed conditions at the hospital, which result is one of the most gratifying features of the work during the present administration.

There have been a number of changes in the medical staff which are recorded at the end of this number of the journal.

On November 15, 1916, Dr. W. C. Sandy, the medical director, was granted a leave of absence for two months at the request of the National Committee for Mental Hygiene. This was for the purpose of conducting a survey of the county institutions for the insane of Pennsylvania, under the auspices of the Public Charities Association of Philadelphia.

It would be amiss not to speak of the unusual cooperation in the work here upon the part of the legislature in granting a sufficient appropriation to

carry on fully the proposed improvements for this year. Everything that the hospital asked for was granted and it is expected to remodel the buildings for the white female patients as it has been done for the white males.

SOUTH DAKOTA.—*Asylum for Insane Indians, Canton.*—A new dairy barn has been completed with a capacity for 20 cows. Pure bred Holsteins are to be placed in the barn as they have proven to be the best stock for this hospital.

It is expected to equip the hydriatic room and operating room in the hospital building in the near future.

VIRGINIA.—The Virginia Society for Mental Hygiene has been organized under the auspices of the conference of medical officers of the state hospitals for the insane and colony for epileptics and feeble-minded. The following officers have been elected: President, Douglas S. Freeman, Ph. D., editor of the News-Leader of Richmond; secretary, H. D. Coghill, field agent of the State Board of Charities; and treasurer, Dr. Hugh C. Henry, first assistant physician of the Central State Hospital at Petersburg. The executive committee is composed of seven members representing the state hospital service, the State Board of Health, the State Board of Charities and Corrections, and the general public.

—*Central State Hospital, Petersburg.*—Among the important structural improvements completed during the past six months are the following: An additional wing to the building for the criminal insane, the lower floor or basement to be used for diversion and employment of this special class of patients; enlargement and improvement of the colony for tubercular men; completion of a modern and adequate water filtration plant, the water being piped from the Appomatox River a mile away; erection of a radial brick stack 125 feet high at the steam plant; enlargement and general improvement of the boiler house and installation of an additional water tube boiler of 300 horsepower and equipment of boilers with hand stokers. The total cost of these improvements was about $40,000.

There are at present 1751 patients in the hospital and 87 on furlough. There are no patients confined in either jails or almshouses anywhere in the state.

Interest in occupational, re-educational, diversional, day and Sunday school classes continues much to the happiness and benefit of a large number of patients. Drills, marches, calisthenics, etc., have been the means of giving much enjoyment to the patients who are confined in the department for the criminal insane.

A special pathologist connected with the Medical College of Virginia, Richmond, Va., is now making Wassermanns of the entire patient population. The results of his investigations will be reported through the annual report of this hospital and elsewhere.

A visiting dentist continues in the service of the hospital. His work is a comfort and benefit to many of the patients. The employment of a dentist

as early as practicable to devote his whole time to the service of the institution is contemplated.

WISCONSIN.—*Hospital for Criminal Insane, Waupun.*—The only construction work completed during the past year, was the building of a concrete wall, enclosing eight acres as an exercising ground and amusement park for violent and run-away patients. This wall is so constructed as to be but four feet above the ground level, though 15 feet in height. This is accomplished by sloping the lawn on the inside into an 11-foot moat, which is drained. The wall is scarcely noticeable, yet affords a perfect safety in keeping this class of patients out of doors at all times when the weather is fit.

During the past year, a workshop has been established in the institution, where arts and craftswork is taught, and a 10-acre park with lawn has been landscaped, which included the planting of 300 trees, 4000 shrubs and 1000 perennials.

CANADA.—*Asylum for Feeble-Minded Girls, St. Ferdinand de Halifax, Quebec.*—On December 31, 1916, this asylum was destroyed by a disastrous fire. Despite heroic efforts on the part of the sisters to save the patients, 45 children died and one sister was burned to death.

—*Ontario Hospital for the Insane, Whitby.*—This hospital, of most modern construction, has recently been completed and has been temporarily taken over by the Military Hospitals Commission for the use of sick soldiers.

—*Hospital for the Insane, Brockville.*—A new reception building was opened at this hospital on August 16, 1916. It is planned to accommodate 60 patients, 30 of each sex. There are four solariums and four verandas, the latter being provided with closed windows so that they will be available for use in winter.

The main floor contains the doctor's office and dispensary, head nurse's suite of rooms, diet kitchens, wards, and special bath rooms and lavatories. The second floor contains the resident physician's apartments, wards, private rooms, attendant's quarters, spray baths, etc. The third floor contains nurses' quarters, storage rooms for patients' clothing, and an operating room with sterilizing, anesthetic and other rooms in conection with it.

Everything possible has been done to make the building homelike and provide means for the recovery of patients.

—*Hospital for the Insane, Hamilton.*—All who knew him have learned with great regret of the sudden death at one of the military hospitals at Shorncliffe, England, of Captain Walter W. McKenzie, M. D., one of the junior physicians of this hospital, who left for oversea service in August, 1915. He was at college a clever student, paying special attention to pathology, and on graduation joined the hospital in 1914. He was one of the most painstaking and efficient of the members of the junior Ontario staff.

The extensive repairs of Orchard House, male side, which was unfortunately gutted by fire on Easter Day, April, 1916, having been completed, and excellent quarters for a dozen night watches added thereto, the patients were returned to this section on February 1.

A vote for a central heating plant has after five years of urgent request been passed by the present session of the Ontario Legislature, and it is hoped to have the building completed and equipment installed in time for the winter season of 1917-1918.

Appointments, Resignations, Etc.

ANDERTON, DR. GEORGE A., Assistant Physician at New Jersey State Hospital at Morris Plains, died at the hospital from diabetes, January 2, 1917.

ANDREW, DR. CARLTON H., appointed Assistant Superintendent of State Hospital for Criminal Insane at Lima, Ohio.

ASPER, DR. BURT J., Assistant Physician at Springfield State Hospital at Sykesville, Maryland, appointed Assistant Surgeon of the Maryland Naval Brigade.

BABER, DR. ERL A., appointed Superintendent of Dayton State Hospital at Dayton, Ohio.

BAGLEY, DR. CARLETON T., appointed Medical Interne at Binghamton State Hospital at Binghamton, N. Y., October 16, 1916.

BAHNSON, DR. HENRY THEODORE, a Director of State Hospital at Morganton, N. C., died at his home in Winston-Salem, January 16, 1917, from angina pectoris, aged 71.

BENSON, DR. H. A., Assistant Physician at Kings Park State Hospital at Kings Park, Long Island, N. Y., resigned October 16, 1916, to accept a commission as Assistant Surgeon in the United States Army.

BENTLEY, DR. FREDERICK DAVID, formerly Assistant Superintendent of Cook County Insane Hospital at Dunning, Ill., died December 23, 1916.

BLACKBURN, DR. ELLA, Assistant Physician at Mt. Pleasant State Hospital at Mt. Pleasant, Iowa, appointed Assistant Physician at Kenilworth Sanitarium at Kenilworth, Ill.

BLEDSOE, DR. EDWARD P., Superintendent of State Hospital for Nervous Diseases at Little Rock, Ark., resigned.

BORDEN, DR. P. G., Assistant Physician at Buffalo State Hospital at Buffalo, N. Y., appointed Assistant Physician at Massillon State Hospital at Massillon, Ohio, October 1, 1916.

BUCKLEY, DR. ALBERT C., Visiting Physician to the Psychopathic Ward of the Philadelphia Hospital, resigned.

BULLOCK, DR. EUGENE H., appointed Superintendent of State Hospital No. 2 at St. Joseph, Mo.

CLARKE, DR. CHARLES K., Superintendent of Toronto General Hospital, resigned.

COHN, DR. ISADORE ELKAN, formerly Assistant Physician at Napa State Hospital at Napa, Cal., died at his home in Berkley, December 3, 1916.

COLLINS, DR. LAWRENCE M., appointed Junior Assistant Physician at New Jersey State Hospital at Morris Plains, March, 20, 1917.

COOLEY, DR. RAYMOND L., Assistant Physician at Kings Park State Hospital at Kings Park, N. Y., transferred to St. Lawrence State Hospital at Ogdensburg., N. Y., October 26, 1917.

COZELMAN, DR. FRED, appointed Assistant Physician at Stockton State Hospital at Stockton, Cal.

CUSACK, DR. THOMAS S., of Brooklyn State Hospital, at Brooklyn, N. Y., appointed Assistant Physician at Kings Park State Hospital at Kings Park, Long Island, N. Y., January 1, 1917.

DANIELSON, DR. WILLIAM A., Third Assistant Physician at Nebraska State Hospital at Hastings, resigned.

DARNALL, DR. ROLAND F., Assistant Physician at State Hospital for Nervous Diseases at Little Rock, Ark., resigned.

DENNET, DR. JOHN V., appointed Junior Assistant Physician at New Jersey State Hospital at Morris Plains, March 26, 1917.

DICKINSON, DR. AMELIA ANN DURAN, Assistant Physician at Southern Indiana State Hospital at Evansville, died February 8, 1917, from pneumonia, aged 42.

Douglas, Dr. Albert E., Superintendent of Central State Hospital for the Insane at Nashville, Tenn., resigned.

Dowell, Dr. Raymond F., Assistant Physician at Warren State Hospital at Warren, Pa., resigned December 23, 1916.

Drewry, Dr. W. F., Superintendent of Central State Hospital at Petersburg, Va., has been appointed a member of the Virginia State Board of Health.

Evans, Dr. Britton D., Medical Director of New Jersey State Hospital at Morris Plains, has been elected a Fellow of the American College of Physicians.

Farmer, Dr. W. Scott, appointed Superintendent of Central State Hospital for the Insane at Nashville, Tenn.

Fernald, Dr. Walter E., Superintendent of Massachusetts School for Feeble-Minded at Waverley, elected Director of Massachusetts Society for Mental Hygiene.

Furman, Dr. I. J., Assistant Physician at Kings Park State Hospital at Kings Park, Long Island, N. Y., promoted to Senior Assistant Physician.

Gayle, Dr. Edward M., Assistant Physician at State Hospital at Morganton, N. C., resigned.

Glass, Dr. Tom W., appointed Assistant Physician at Kalamazoo State Hospital at Kalamazoo, Mich.

Gordon, Dr. S. F., Assistant Physician at Connecticut Hospital for the Insane at Middletown, resigned November 24, 1916.

Gordon, Dr. Samuel Finley, Assistant Physician at Warren State Hospital at Warren, Pa., resigned August 28, 1916.

Grant, Dr. Margaret S., Assistant Physician at Kenilworth Sanitarium at Kenilworth, Ill., appointed Pathologist at Lutheran Hospital at Fort Wayne, Ind.

Grout, Dr. Don D., Superintendent of State Hospital for the Insane at Waterbury, Vt., resigned.

Hankins, Dr. George G., Assistant Physician at Eastern State Hospital at Williamsburg, Va., was attacked by an insane patient early in November and sustained a fracture of the skull.

Harper, Dr. E. C., Assistant Physician at Central State Hospital at Petersburg, Va., resigned to enter State Health work.

Healy, Dr. William, Director of Juvenile Psychopathic Institute of Chicago, Ill., resigned to take charge of the Judge Harvey Baker Foundation, a similar institution in Boston, Mass. He was tendered a farewell dinner by the Chicago Ethical Society on January 30, 1917.

Hedlund, Dr. Ward W., appointed Third Assistant Physician at Nebraska State Hospital at Hastings.

Helm, Dr. Squire L., First Assistant Physician at Eastern State Hospital at Lexington, Ky., appointed Superintendent of State Institute for Feeble-Minded at Frankfort, Ky.

Heyman, Dr. Marcus B., Assistant Superintendent of Central Islip State Hospital at Central Islip, N. Y., was offered the superintendency of State Hospital for Nervous Diseases at Little Rock, Arkansas, but declined it.

Higdon, Dr. Edward F., appointed Assistant Physician at State Hospital No. 2 at St. Joseph, Mo.

Hildrup, Dr. Jefferson R., appointed Assistant Physician at State Epileptic Village at Newcastle, Ind.

Hocking, Dr. George H., of Govans, Member of Maryland State Lunacy Commission, was shot several times by an insane patient whom he was visiting December 29, 1916, but fortunately escaped serious injury and was able to resume practice after about six weeks.

Hogan, Dr. O. F., appointed Interne at State Hospital for the Insane at Columbia, S. C., July 17, 1916.

Hulbert, Dr. Harold S., of Ann Arbor, Mich., has been appointed to make a survey of the state and county insane of Tennessee.

Hutchings, Dr. R. H., Superintendent of St. Lawrence State Hospital at Ogdensburg, N. Y., made a survey of his native state, Georgia, during October and November, for the National Committee for Mental Hygiene.

HYDE, DR. LOREN A., appointed Superintendent of Marion County Hospital for Incurable Insane at Julietta, Ind.

KEHOE, DR. H. C., Superintendent of State Institute for Feeble-Minded at Frankfort, Ky., resigned.

KENERTHY, DR. MARION E., Assistant Physician at Gardner State Colony at East Gardner, Mass., resigned March 1, 1917, to become Second Assistant Physician at Foxborough State Hospital at Foxborough, Mass.

KENISTON, DR. JAMES M., Assistant Physician at Connecticut Hospital for the Insane at Middletown, resigned October 4, 1916. Dr. Keniston has recently published a book entitled "The Kingdom of the Mind."

KIRK, DR. CHESTER C., Assistant Physician at Toledo State Hospital at Toledo, Ohio, appointed Superintendent of State Hospital for Nervous and Mental Diseases at Little Rock, Arkansas.

KLINE, DR. GEORGE M., Director of Massachusetts Commission on Mental Diseases, elected Director of Massachusetts Society for Mental Hygiene.

KRAFT, DR. J. EUGENE, appointed Medical Interne at Kings Park State Hospital at Kings Park, Long Island, N. Y., November 29, 1916.

LEE, DR. D. C., Assistant Physician at State Hospital for Nervous Diseases at Little Rock, Ark., resigned.

LORD, DR. MATHIAS L., from 1868 to 1885 Superintendent of Monroe County (N. Y.) Insane Hospital, died at his home in Rochester, November 28, 1916.

LYON, DR. MORRIS A., appointed Medical Interne at Kings Park State Hospital at Kings Park, Long Island, N. Y., December 20, 1916.

MACAUSLAN, DR. J. L., Assistant Physician at Norwich State Hospital at Norwich, Conn., appointed Assistant Physician at Gardner State Colony at East Gardner, Mass., February 12, 1917.

MCCAULEY, DR. FRANK, acted as substitute Physician at New Jersey State Hospital at Morris Plains, from July to September, 1916.

MCELROY, DR. H. S., appointed Interne at State Hospital for the Insane at Columbia, S. C., September 20, 1916.

MCKENZIE, DR. WALTER W., formerly Junior Physician at Hospital for the Insane at Hamilton, Ontario, recently Captain in Canadian Overseas Expeditionary Forces, died in a military hospital at Shorncliffe, England.

MABON, DR. WILLIAM, Superintendent of Manhattan State Hospital at Ward's Island, N. Y., died February 9, 1917, from a two-days illness of pneumonia, aged 56.

MELVIN, DR. GEORGE M., appointed Assistant Physician at Connecticut Hospital for the Insane at Middletown, September 21, 1916.

MIKELS, DR. FRANK M., Assistant Physician and Pathologist at New Jersey State Hospital at Morris Plains, resigned November 9, 1916.

MILLER, DR. C. ROSS, Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., granted leave of absence, November 1, 1917, on account of ill health.

MILLER, DR. WILLIAM CLEVELAND, Appointed Assistant Physician at Warren State Hospital at Warren, Pa., January 17, 1917.

MURPHY, DR. PATRICK, Assistant Physician at State Hospital for Nervous Diseases at Little Rock, Ark., resigned.

NAPHEYS, DR. WILLIAM D., appointed Assistant Physician at St. Elizabeth's Hospital at Washington, D. C.

NEFF, DR. MARY LAWSON, gave an address at the last meeting of the Arizona State Bar Association on The Relation between Mental Defectives and Crime.

NOLAND, DR. STACY T., Assistant Physician at Eastern Shore State Hospital at Cambridge, appointed Assistant Physician at Montana State Hospital at Warm Springs.

O'HARE, DR. THOMAS AUGUSTINE, President of the Board of Managers of Rochester State Hospital at Rochester, N. Y., died November 21, 1916.

OHLMACHER, DR. ALBERT PHILIP, formerly Superintendent of Ohio Hospital for Epileptics at Gallipolis, died at his home in Detroit, November 10, 1916.

OSBORNE, DR. HARRIS BENNETT, for eighteen years a Trustee of Kalamazoo State Hospital at Kalamazoo, Mich., died at his home October 6, 1916.

OWENS, DR. OLEN CLINTON, formerly Superintendent of Central State Hospital at Lakeland, Ky., died October 8, 1916, from fracture of the hip received in an accident at the Latonia race course two days before, aged 53.

PACE, DR. W. T., Assistant Physician at State Hospital for the Insane at Columbia, S. C., resigned September 30, 1916, to enter private practice.

PAINE, DR. DEWITT A., formerly Superintendent of Oregon State Hospital at Salem, died suddenly at his home in Eugene, Ore., from cerebral hemorrhage, December 27, 1916, aged 63.

PHILLIPS, DR. HORACE, formerly Assistant Physician at Pennsylvania Hospital for Insane at Philadelphia, appointed Visiting Physician to the Psychopathic Ward of the Philadelphia Hospital.

PILGRIM, DR. CHARLES W., for twenty-five years Superintendent of Hudson River State Hospital at Poughkeepsie, N. Y., was granted leave of absence to assume the Chairmanship of the State Hospital Commission at Albany, N. Y., September 13, 1916.

PINTO, DR. NICHOLAS W., appointed Assistant Physician at Kalamazoo State Hospital at Kalamazoo, Mich.

POND, DR. MELBOURNE JABEZ, appointed Assistant Physician at Warren State Hospital at Warren, Pa., October 6, 1916.

POTTER, DR. BENJAMIN S., Superintendent of Marion County Hospital for Incurable Insane at Julietta, Ind., resigned.

PRICHARD, DR. WILLIAM H., formerly Superintendent of Ohio Hospital for Epileptics at Gallipolis, was appointed Superintendent of Columbus State Hospital at Columbus, Ohio, after a competitive examination in July, 1916.

RATCLIFFE, DR. E. A., Assistant Physician at Central State Hospital at Petersburg, Va., resigned to enter private practice.

RAYNOR, DR. MORTIMER W., appointed Chief Psychiatrist to the penal institutions of New York City.

REBER, DR. JOHN WENDELL, formerly Assistant Physician at State Hospital for Insane at Norristown, Pa., died at his home in Germantown, Pa., December 23, 1916, from angina pectoris.

REGISTER, DR. D. W., Assistant Physician at State Hospital for the Insane at Columbia, S. C., resigned November 15, 1916, to enter private practice.

RODGERS, DR. ARTHER G., Medical Interne at Willard State Hospital at Willard, N. Y., transferred to Hudson River State Hospital at Poughkeepsie, N. Y., and subsequently promoted to Assistant Physician.

ROGERS, DR. ARTHUR CURTIS, Superintendent of Minnesota School for Feeble-Minded and Colony for Epileptics at Faribault, died January 2, 1917, from pernicious anemia.

ROOF, DR. CLAUDE D., Superintendent of Lancaster County Hospital and Insane Asylum at Lancaster, Pa., appointed Assistant Physician at State Hospital for Insane at Norristown, Pa.

ROSS, DR. GEORGE WHITING, Trustee of Jacksonville State Hospital at Jacksonville, Ill., died August 31, 1916, from nephritis, aged 59.

RUSSELL, DR. WILLIAM C., appointed Assistant Physician at Massillon State Hospital at Massillon, Ohio, October 1, 1916.

SANDIGE, DR. ROY P., First Assistant Physician at Central State Hospital at Petersburg, Va., resigned to enter the United States Public Health Service.

SANDY, DR. WILLIAM C., Medical Direcor of State Hospital for the Insane at Columbia, S. C., was granted a two months leave of absence to make a survey of the county institutions of Pennsylvania for the Public Charities Aid Association.

SANFORD, DR. LESTER A., appointed Medical Interne at Binghamton State Hospital at Binghamton, N. Y., February 26, 1917.

SCHNEIDER, DR. CARL VON ARX, First Assistant Physician at Gowanda State Hospital at Gowanda, N. Y., died January 28, 1917, from typhoid fever, aged 37.

SHARKEY, DR. M. B., Medical Interne at Utica State Hospital at Utica, N. Y., resigned September 30, 1916, to become Medical Inspector of the Franklin Automobile Company.

SULLIVAN, DR. J. C., appointed First Assistant Physician at Eastern State Hospital at Lexington, Ky.

THOMPSON, DR. HERBERT E., Pathologist at Bangor State Hospital at Bangor, Me., resigned February 20, 1917, to accept a similar position at Worcester State Hospital at Worcester, Mass.

THORNE, DR. FREDERICK H., formerly Pathologist at New Jersey State Hospital at Morris Plains, was reappointed November 9, 1916, on his return from service in the First Field Hospital of the New Jersey National Guards.

THURSTON, DR. RALPH M., Assistant Physician at Fergus Falls State Hospital at Fergus Falls, Minn., resigned.

TIGHE, DR. LEO ROSS, appointed Medical Interne at Hudson River State Hospital at Poughkeepsie, N. Y., August 7, 1916.

TOMPKINS, MRS. ANNA M., Occupational Director at Danvers State Hospital at Hathorne, Mass., appointed Occupational Director at Kalamazoo State Hospital at Kalamazoo, Michigan.

TOWNSEND, DR. LOUISE, appointed Medical Interne at Binghamton State Hospital at Binghamton, N. Y., November 1, 1916, and resigned January 1, 1917, to become Interne at Bellevue Hospital, New York City.

TRUE, DR. GEORGE P., formerly Assistant Superintendent of State Hospital No. 3 at Nevada, Mo., died at his home in Kansas City, September 1, 1916, aged 66.

WADE, DR. J. PERCY, Superintendent of Spring Grove Hospital at Catonsville, Md., was tendered a dinner by his friends and associates at the Baltimore Club, October 26, 1916, in commemoration of the twenty-fifth anniversary of his services to Spring Grove Hospital.

WAGNER, DR. CHARLES G., President of the American Medico-Psychological Association, on February 8, 1917, completed twenty-five years' service at Superintendent of Binghamton State Hospital at Binghamton, N. Y.

WALLHOUSER, DR. H. A., Junior Assistant Physician at New Jersey State Hospital at Morris Plains, resigned February 1, 1917, to take service in the Newark City Hospital.

WASSON, DR. WATSON L., Assistant Superintendent of State Hospital for the Insane at Waterbury, Vt., promoted to Superintendent.

WEST, DR. CALVIN B., Senior Assistant Physician at Kings Park State Hospital at Kings Park, Long Island, N. Y., resigned January 16, 1917.

WHITCOMB, DR. HARRY HUSTON, Consulting Physician to State Hospital for Insane at Norristown, Pa., died September 28, 1916, from angina pectoris, aged 60.

WHITTINGTON, DR. WILLIAM L., Superintendent of State Hospital No. 2 at St. Joseph, Mo., resigned.

WILLIAMS, DR. FRANKWOOD E., Executive Secretary of Massachusetts Society for Mental Hygiene and Chairman of Massachusetts Advisory Prison Board, resigned and appointed Assistant Medical Director of National Committee for Mental Hygiene.

WITHINGTON, DR. CHARLES FRANCIS, a member of the Consulting Staff of the Boston State Hospital, died at his home in Boston, Mass., January 7, 1917, from heart disease, aged 64.

WISEMAN, DR. JOHN I., formerly Assistant Physician at Boston State Hospital at Dorchester Centre, Mass., appointed Assistant Physician at Connecticut Hospital for the Insane at Middletown, December 2, 1916.

WORTHING, DR. H. J., Assistant Physician at St. Lawrence State Hospital at Ogdensburg, N. Y., who has been in Texas with the 22d Regiment, N. Y. N. G., returned to his duties at the hospital January 24, 1917.

WRIGHT, DR. HOWARD J., appointed Assistant Physician at Stockton State Hospital at Stockton, Cal.

YOUNG, DR. FRANKLIN C., appointed Junior Assistant Physician at New Jersey State Hospital at Morris Plains, March 17, 1917.

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